



**SELF STUDY REPORT**  
**FOR**  
**2<sup>nd</sup> CYCLE OF ACCREDITATION**

**B. S. ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE  
AND TECHNOLOGY**

**SEETHAKATHI ESTATE GST ROAD VANDALUR CHENNAI - 600 048 CHENGALPATTU  
DISTRICT TAMIL NADU  
600048**

**[www.crescent.education](http://www.crescent.education)**

**Submitted To**

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL****BANGALORE****January 2020****Executive Summary*****Introduction:***

B.S. Abdur Rahman Crescent Institute of Science & Technology got established as a “Deemed to be University” under section 3 of the UGC Act 1956, on 16th December 2008, by an order from MHRD, Government of India. Earlier, this institute was functioning as an “Affiliated Engineering college” for 25 years i.e., from 5th Nov 1984 to 30th June 2009. During 1984 to 2000, this institute was affiliated with “University of Madras”, Chennai and from 2000 to 2008, it was affiliated with Anna University, Chennai.



It is one of the most sought after Engineering Institutions both by students and parents, because of the quality aspects of our education system, especially, during the affiliated tenure. During this period, it has nurtured more than 11,000 technically qualified persons, who occupy some enviable positions, across the globe.

This University amongst many other institutions, is the realization of a dream of a single person “Dr.B.S.Abdur Rahman”, a great Philanthropist, a Reformer and a first generation – self made entrepreneur, who on his own volition shared the profits of his 6 billion USD business in India and abroad to establish the “Not for Profit” institutions to educationally uplift the Women and socially disadvantaged sections in general and Muslims in particular. He provided not only equal opportunities to all, but stood by principles of honesty and transparency. His Zakath Fund of Ramadan offers free scholarship to the poor and distributes on an average over Rs. 3 Crore.

This deemed to be University was led by eminent academicians, administrators and former Vice-Chancellors of Central Universities, State Universities and International Universities, since its inception. The First Vice-Chancellor of this institute was Dr.P.Kanniappan, an eminent former Vice-Chancellor of Alagappa University, Karaikudi, a State University and MHRD Category - I University. The Second Vice-Chancellor was Padmashri Dr.J.A.K.Tareen, a Scientist and Former Vice-Chancellor of Jammu & Kashmir University and Pondicherry University, Central Universities. Tan Sri Dato Sri Ir. Dr.Sahol Hamid Bin Abu Bakar, the fourth Vice-Chancellor & a Foreign National, was the former Vice-Chancellor of one of the largest Universities in the World viz., UiTM, Malaysia.

### ***Vision:***

The Vision of B. S. Abdur Rahman Crescent Institute of Science and Technology :

B. S. Abdur Rahman Crescent Institute of Science and Technology aspires to be a leader in Education, Training and Research in multidisciplinary areas of importance and to play a vital role in the Socio-Economic progress of the country in a sustainable manner.

### ***Mission:***

The Mission of B. S. Abdur Rahman Crescent Institute of Science and Technology :

- To blossom into an internationally renowned Institute.
- To empower the youth through quality and value-based education.
- To promote professional leadership and entrepreneurship.
- To achieve excellence in all its endeavors to face global challenges.
- To provide excellent teaching and research ambience.
- To network with global Institutions of Excellence, Business, Industry and Research Organizations.
- To contribute to the knowledge base through scientific enquiry, applied research and innovation.

### **Core Values :**

The Core Values of B. S. Abdur Rahman Crescent Institute of Science and Technology :

The four core values of the institute are Technical Competence, Intellectual Character, Commitment to Excellence and Community focus. The four stars in the logo of the institute signifies the four core values :

- **Technical competence:** To have the right technical skill set and apply knowledge and skills to perform specific tasks within the organization.
- **Intellectual character:** To develop intellectual traits of mind and personality that can promote successful learning among students.
- **Commitment to Excellence:** To create passion and a strong sense of dedication among students, so that they strive in pursuit of success and eminence.
- **Community Focus:** To join hands with the common fraternity and adhere to its needs by way of sharing opinions and solving problems for its smooth function.

***Institutional Strength :***

- Our foremost strength is the commitment of the Founder and the Management to maintain high standards of transparency, academic freedom and not to compromise on quality.
- These basic characteristics and academic freedom have attracted large number of highly qualified research oriented senior faculty to the institution.
- The retention rate of the faculty is high and it is over 80% for minimum of 5 years.
- Keeping in tune with the Vision, the Management has been investing continuously on creating state-of-the-art infrastructure, laboratory facilities, IT Infrastructure with decentralized academic and administrative powers to the level of Deans and Heads of the Departments.
- This has resulted in fast decision making and more effective designing and the revision of curricula as well as smooth implementation of the teaching learning and evaluation process.
- The encouragement and incentive for research, publications and research projects has shown extremely encouraging results within a short time.
- The University has consistently maintained high placement records.

***Institutional Weakness :***

- One of the weaknesses is that it has not spread its wings into the field of Medicine and other related paramedical domains.
- The declining trend of students taking to pursue Engineering Studies has also affected this University, as we could not run masters program with full strength, though these departments have good faculty and facilities in addition to NBA Accreditation.
- The other inherent weakness encountered is the largely localized character of both the students and the faculty which as a matter of fact will slow down our efforts for greater visibility through innovation and cross fertilization of ideas.
- Diversity in students and faculty is the basic requirement, if the University has to attain higher standards of teaching and learning environments.
- One another weakness which we have encountered is the language and communication particularly with students who come from rural background and those who studied in the vernacular medium, although this University has established special Language Laboratories and Bridge Courses for such students, this has been a weakness and a challenge.

***Institutional Opportunity :***

- The opportunities for higher education have been extremely bright, provided the output quality is excellent, but, the challenge for survival in the existing competitive global scenario is also equally high.
- The emerging globalization and open economy have also brought in a huge mobility of students across the world exploring for education of their choice and the education which fetches them jobs anywhere.
- This is not only a challenge before universities and institutions of higher education to keep pace with the changing times but at the same time provide an opportunity to globalize themselves.
- One more opportunity that seems to be coming up in near future is the possibility of joining hands with overseas universities to offer joint programs and twin degree programs.
- But, it has to be noted that there would be competition between the Indian Private Institutions as well as getting the right and accredited University partners.

***Institutional Challenge :***

- Our Institute clearly recognizes both the challenges and opportunities and has chalked out a clear strategic plan to gradually change its complexion and composition.
- It has set certain definite targets to be achieved on different parameters and envisaged strategies for future growth.
- To offer quality education at affordable cost.
- Though the industrial collaboration is good, attracting more industries for R & D projects and student placements is a tough job.
- The vision document prepared by this Institute have several new targets to be attained in the next five years which is certainly a challenging task.
- But, this institute could see a great opportunity available ahead, to emerge as an institution of global excellence.

## **Criteria wise Summary**

### ***Curricular Aspects :***

#### **Curriculum Design and Development**

- Choice based credit system
- Outcome based teaching-learning is practiced
- Well-defined Programme Educational Objectives (PEOs) and Programme Outcomes (POs) for all the programmes offered by this institute
- Every course has Course Educational Objectives & Course Outcomes
- School Level Advisory Committee (SLAC) comprising all the stakeholders, offer inputs & suggestions for the curriculum development

#### **Academic Flexibility**

- Institute wise General Elective courses
- Discipline wise Elective courses, which can be credited to any student
- Credit transfer for NPTEL / SWAYAM courses
- Self-learning courses
- Peer Assisted Learning
- Capstone Project in an Industry
- The individual course teachers are empowered to choose the teaching pedagogy to suit the course
- Some of the popular pedagogies practiced in this Institute include flipped class room, activity based learning, case studies, project based learning, Internship in Foreign Universities etc.,

#### **Curriculum Enrichment**

- One credit course or two credit course by Affiliate faculty from International Universities and Industries
- Leadership and CEO Training
- Social Entrepreneurship
- Mandatory Industrial Internship
- Soft skills and Personality Development
- Communication and soft skill I – Career Choice
- Communication and soft skill II – Confidence Building
- Value education / NSS / NSO / Yoga / Meditation
- Making the laboratory experiments more close to industrial practices

## Feedback System

- The attainment of course outcomes are evaluated by direct and indirect assessment methods
- At regular intervals, the student feedback is collected about the course teacher, as well as about the course
- Most of the programmes are offered and evaluated on the basis of OBE and Continuous Improvement mode
- The institute and all the eligible programmes have been accredited
- Feedback from all the stakeholders including Students, Parents, Alumni, Industry, Employers, Funding Agencies, Faculty are periodically obtained and the feedback is embedded in the system



## Teaching-learning and Evaluation :

### Student Enrolment and Profile

- Transparent admission policy
- Common online entrance examination
- Scholarship for deserving and meritorious students
- 25% women students
- More than 65% students belong to minority/ socially backward/ economically backward categories

### Catering to Student Diversity

- Though the student diversity is not a big volume, special care has been taken to offer a level playing field through bridge courses and special classes for slow learners
- A well organised student support system is actively functioning



## Teaching-Learning Process

- Outcome Based Education
- All the programmes and courses do have Learning Objectives and Learning Outcomes
- Initiatives are taken to achieve the Graduate Attributes/ Skill sets
- Four tier academic audit system viz., Department Academic Audit Committee (DAAC), External Academic Audit Committee (EAAC), Academic and Administrative Audit (AAA) & Internal Quality Assurance Cell (IQAC)

## Teacher Profile and Quality

- Faculty-student ratio is 1:14.87
- 45% of the faculty members are Ph.D qualified
- 47% of the faculty members are pursuing Ph.D
- More than 90% of the faculty members involve in Research activities

## Evaluation Process and Reforms

- Theory course have two continuous assessments (50% weightage) and one Semester End Examination (50% weightage).
- The assessment mechanism may include assignment, project work, quiz, seminar, report writing, case studies etc. in addition to the mandatory written examination
- Student should have secured atleast 40% marks in Semester End Examination for successful completion of course.
- Practical course has 60% weightage for the continuous assessment and 40% weightage for the Semester End Examination.
- However, a student should have secured a minimum of 50% marks in the Semester End Practical Examination
- Provision for Photocopy of the answer sheets, revaluation are available.
- Results are published within a week after the last exam.
- Grievance redressal mechanism is available

### Student Performance and Learning Outcomes

- Attainment of learning outcomes are periodically measured through both direct and indirect assessments
- Attainment of Course Outcomes and Programme Outcomes are ensured
- Performance of the students in curricular, cocurricular and extracurricular activities are equally good

### Research, Innovations and Extension :

#### Promotion of Research and Facilities

- Aspiring to be a "Research Intensive Institute"
- Institute Fellowships for Full-time research scholars
- Exclusive R&D budget
- Procurement of Research Equipment / Software
- Financial support for International Conference presentations
- Research Incentives for publications, patents, funded projects, publication of books, etc.
- Scholars are also awarded government fellowships from CSIR/ DST/ UGC/ DBF/SERB

#### Resource Mobilization for Research

- Successfully completed 39 sponsored research projects worth of Rs. 5.64 Crore
- 22 research projects are being pursued with a sponsorship of Rs. 4.04 Crore
- Polymer Nanotechnology Centre sponsored by DST Nano Mission for Rs. 1.2 Crore
- Rs.1.8 Crore BIONEST Incubator grant from BIRAC, Department of Biotechnology, Government of India.

### Innovation Ecosystem

- Crescent Innovation and Incubation Council (CIIC) is established as a Section - 8 company
- Vision of CIIC is to nurture our society by nudging entrepreneurs with integrity, sustainability and innovation
- Mission of CIIC is to promote new age cutting technologies and to be unique in its conceptualization



## Research Publications and Awards

- Institute Scopus h-index : 47
- Number of Research Publications : 5,743
- Number of Publications during 1984-2008 : 1,058
- Number of Publications since 2009 : 4,685
- Total number of Citations : 11,205
- Average Citation index : 5.67
- Average Impact factor : 1.739
- Number of Papers with more than 10 SCOPUS citations : 267
- Research paper with highest SCOPUS citations : 233
- Highest impact factor of the journal : 9.74

## Consultancy

- Well-established consultancy policy including revenue sharing is available
- Revenue is generated through Industrial consultancy projects and corporate training

## Extension Activities

- Extension activities are carried out through extra-curricular and co-curricular means
- Some of the active clubs include Youth Red Cross, ISTD, YRC, NSS, NSO, Rotaract, Astronomy club, Photography club, Electronics hobby club, Robotics club, Code development club
- Active Professional societies including IEEE, ASME, ASCE, IETE, ISA
- Adopted 5 nearby villages

## Collaboration

- Collaborations yielded positive results in terms of Collaborative Research, Publications, Patents etc.,
- Affiliate Faculty offer one credit course or two credit courses.
- Study Abroad Programme

## *Infrastructure and Learning Resources :*

### Physical Facilities

- The Institute spans over 50.19 acre of sprawling, serene and ever green campus abutting the GST Road, Vandalur-Kelambakkam Road with more than 1,39,528.80 sq.m feet built up area.
- Academic buildings have adequate, well ventilated classrooms
- More than 150 smartclass rooms
- More than 100 laboratories
- Department seminarhall
- Faculty cabins
- Staff Quarters for Faculty members and supporting staff members
- Separate hostels for men and women students
- Convention Centre



- 100% power backup to meet load shedding
- Student Amenities Centre
- Book and Stationery Store
- Bank and ATM facility
- Medical centre
- Yoga & Fitness centre
- RO water plant
- Sewage Treatment Plant
- Solid Waste Management facilities
- Electrical Substation with HT connection
- Roof top Solar Power Plant
- Swimming pool
- Play grounds-indoor and outdoor
- Transport facilities
- Central Canteen
- Community Hall
- Common room for Boys
- Common room for Girls



### Library - Learning Resource

- Well-stacked & automated central library with required collection of Books and Journals
- 22 Department Libraries
- Book store
- E-journals & Print journals
- E-books & Books
- E-magazines & Magazines
- Complete NPTEL Package of lectures
- SWAYAM and OCW materials
- Membership in Inflibnet, Malibnet, British Council, USConsulate, IITM, SERC, Anna University libraries
- Remote access to library resources
- Library works more than 350 days in a year



### IT Infrastructure

- State of the art & Centralised Data Centre
- High end Blade & Rack Servers(hp)
- 18 tera byte SAN storage & virtualisation
- Central Computing facilities
- Centralised content repository
- UTM -next generation fire wall for security
- Adequate (more than 100) licensed software tools
- Internet connections (both wired and Wi-Fi)
- Department computer labs
- Lecture capturing system
- Computer maintenance cell
- Campus Digitisation through TCSiON

### Campus Infrastructure

- Well-established Estate Office takes care of the campus maintenance

- Transport workshop facility
- Housekeeping & Security services are outsourced
- AMC for UPS
- Computer maintenance cell
- Campus electrical maintenance including substation
- Solid waste management is outsourced
- Rainwater harvesting and STP
- Centralised Calibration Centre facility
- Outsourced Canteen facility
- Zero discharge campus in terms of solid, liquid&E-waste

### ***Student Support and Progression :***

#### **Student Support**

- Annual scholarship to meritorious and needy students
- Government scholarships for minority and category students
- Education loan facilities from bank
- Class Advisors for every class
- Faculty Advisors for every 20 students
- Professional Counsellor
- Career Counselling
- Guidance for Competitive examinations
- Personality & Soft Skill Development
- Student Induction Training Programme
- Bridge courses & Special classes for slow learners
- Language lab
- Office for International students
- Students grievance redressal cell & mechanism
- Women Grievance Cell
- Anti-Sexual Harassment Cell
- Anti-Ragging cell
- Internal Complaints Committee
- Prevention Caste Based Discrimination
- Group Insurance & Medical Facility
- Sport Facility
- Town Hall talk by VC

#### **Student Progression**

- Full time Placement Officer & Office for employment, higher studies assistance
- Crescent Innovation and Incubation Council for grooming start-ups
- Crescent competitive examination centre
- All the students are enrolled as a member, in atleast one of the professional societies IEEE, ASME, ASCE, IETE, ISA, ACDOS, ACM, APT etc.,
- Literary club, ISTD, YRC, NSS, NSO, Rotaract, Astronomy club, Photography club, Electronics hobby club, Robotics club, Code development club, Writer's Club etc.,
- Regular conduct of co-curricular and extra-curricular activities
- Crescent Students Magazine

#### **Student Participation and Activities**

- Participation in National /International curricular, co-curricular and extra-curricular competitions & hackathons is encouraged by liberal funding
- Study abroad programme to International Universities
- Students nominated for School Level Advisory Committee
- Active student council
- Crescent Creative Strokes club



## Students Achievements (Indicative)

### Civil Engineering

- "Low cost house using GFRG Panel"
- Rapid Wall Construction Technology
- Project Cost Rs. 5.5 Lakhs

### Mechanical Engineering

- "Smart Intravenous Dripper"
- Funded by DST and Texas Instrumentation Rs. 5 lakhs

### Electronics & Instrumentation Engineering

- Rehabilitation of paralysed using Hand Gestures /EEG through Bluetooth
- Won 1st prize

### Alumni Engagement

- Several alumni occupy enviable positions across the globe
- Alumni representation is ensured in various authorities like School Level Advisory Committee, Academic Council, Board of Studies etc.,
- Registered alumni association
- Chapters of alumni association are functional in USA, UAE, Australia, Singapore etc.,
- Guest lectures by eminent alumni
- Alumni association offers limited scholarship to needy students

## *Governance, Leadership and Management :*

### Institutional Vision and Leadership

- Eminent Former Vice-Chancellors of International, National & State Universities were the leaders of this institute
- Vice-Chancellor is the Chairman of all statutory bodies and given full autonomy & powers to execute Vision and Mission of this Institute
- Day-to-day functioning is carried out by institute authorities

## Strategy Development and Deployment

- Institute functions as per the guidelines, decisions and directions of the Board of Management
- Other statutory bodies like, Finance Committee, Planning & Monitoring Board, Academic Council, Board of Studies, Research Advisory Committee and Research Board
- Periodical perspective/ strategic plan are prepared and executed with the participation of all stakeholders
- E-governance is introduced in all possible areas of academic and administrative systems.
- Periodical conduct of meetings and minutes of meetings are shared

### **Faculty Empowerment Strategies**

- Faculty empowerment awareness is ensured in faculty induction training programme
- Academic and administrative freedom
- Several welfare measures for teaching and non-teaching staff have been introduced, in order to enhance their commitment and affinity
- Liberal financial support is provided to attend Conferences/ Workshops/ FDPs/ Administrative Programme/ Orientation Programme etc.,
- Cash incentive schemes for Research related contribution

### **Financial Management and Resource Mobilization**

- Periodical internal and external audits
- Audited statements are submitted to government agencies
- Adequate funds for all activities including future development
- Major resources for finance include student fee, earnings through sponsored projects, consultancy, training programmes, management contribution etc.,
- Well-established purchase procedure for equipment, software etc.,
- Three budget review meetings to ensure effective utilisation of budget

### **Internal Quality Assurance System (IQAS)**

- AQAR reports are submitted on time, every year
- IQAS conducts periodical review of Teaching - Learning process
- Four tier (DAAC, EAAC, AAA & IQAC) academic audit system
- 20 programmes are accredited by NBA, under Tier- I format, under Washington Accord
- ISO 9001 -2015 certified institute, since 1990
- "4 -Star Rating" from the world renowned QS
- "Diamond Rating" by QS IGauge
- Participating in NIRF ranking, since its inception
  - Engg: AIR 54(2016); AIR 89(2017); AIR 79(2018); AIR 131(2019)
- Awarded QS India Ranking 2020: 81-85
- Awarded QS Asia Ranking 2020: 451-500

### ***Institutional Values and Best Practices :***

#### **Institutional Values and Social Responsibilities**

- The four core values of the institute are Technical Competence, Intellectual Character, Commitment to Excellence and Community focus. The four stars in the logo of the Institute signifies the four core values.

- More than 65 % students belong to minority / socially backward / economically backward categories
- Several measures have been initiated for Sustainability and Environment consciousness
- Roof top solar power plant's capacity is 50% of the sanctioned demand
- Green campus
- Rainwater Harvesting
- Biogas plant
- Solar water heaters
- Sewage treatment plant
- Solid waste Management and E-waste Management
- No plastic zone
- Green Building Certification
- Recycling of papers through ITC
- Differently-abled friendly campus
- Zero discharge of waste
- Adoption of nearby villages
- Supporting nearby village Panchayats, Government Organisations
- Courses on Professional Ethics & Human Values, Law for Engineers, Sustainability etc.,
- Organises programme for promotion of universal values, national values, national festivals etc.,
- Total transparency in Academic, Administrative, Financial & Auxiliary functions of the Institute

### **Best Practices**

- Flexible choice based credit system
- Outcome based education
- Feedback from all the stake holders
- Experiential Learning through Design / Simulation / Fabrication
- Project based learning
- Affiliate faculty from abroad and industries
- Mandatory Industrial internship
- More weightage for practical courses
- Laboratory integrated theory courses
- Courses on “Social Entrepreneurship”; “Leadership & CEO training”
- Self-learning courses & value added programmes
- Liberal scholarship for deserving students
- Transparent administration
- Innovation and Incubation Council
- Earn while learn scheme
- Research Incentive Scheme for faculty
- Financial support for attending Conferences
- Institute Research fellowships
- Green campus initiatives
- Fee concession for the wards of the employee
- Sabbatical leave for faculty members
- Industry Sponsored Laboratories
- Exclusive training programme for Industries
- Seed Money for researchers

### **Institutional Distinctiveness**

- Caters to the need of Underprivileged and Minority students
- Quality Education at affordable cost

- Research Incentive Scheme
- Affiliate Faculty from International Universities / Industries
- Performance appraisal through well-informed KPIs
- Town Hall talk by Vice Chancellor
- Blue Ocean Strategies
- Our Motto is : We create Employers; Nurture Leaderpreneurs
- Green campus initiatives
- Rigorous academic audit
- Outcome based Education
- Assessment of attainment of Outcomes
- Programme-wise accreditation
- Zero waste Discharge
- Environment, Social & Sustainability awareness

## Profile

### BASIC INFORMATION

Name and Address of the University	
Name	B. S. ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
Address	Seethakathi Estate GST Road Vandalur Chennai - 600 048 Chengalpattu District Tamil Nadu
City	CHENNAI
State	Tamil Nadu
Pin	600048
Website	<a href="http://www.crescent.education">www.crescent.education</a>

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Vice Chancellor(in-charge)	A. AZAD	044-22759203	9444013050	044-22750520	director.aria@crescent.education
Professor	R. RAJA PRABU	044-22759218	9443091186	044-22750007	vc@crescent.education

<b>Nature of University</b>	
Nature of University	Deemed University
<b>Type of University</b>	
Type of University	Unitary

<b>Establishment Details</b>	
Establishment Date of the University	05-11-1984
Status Prior to Establishment, If applicable	Affiliated College
Establishment Date	04-11-1984

<b>Recognition Details</b>		
<b>Date of Recognition as a University by UGC or Any Other National Agency :</b>		
<b>Under Section</b>	<b>Date</b>	<b>View Document</b>
2f of UGC		
12B of UGC		

<b>University with Potential for Excellence</b>	
Is the University Recognised as a 'University with Potential for Excellence (UPE)' by the UGC?	No

<b>Location, Area and Activity of Campus</b>							
Campus Type	Address	Location *	Campus Area in Acres	Built up Area in sq.mts.	Programmes Offered	Date of Establishment	Date of Recognition by UGC/MHRD
Main campus	Seethakat hi Estate GST Road Vandalur Chennai - 600 048 Chengalpa	Semi-urban	50.19	139528.8	Engineering, Architecture, Pharmacy, MBA, MCA, Arts, Sciences, Humanities and Legal Studies		

ttu District Tamil Nadu						
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**ACADEMIC INFORMATION****Furnish the Details of Colleges of University**

	Number
Constituent Colleges	0
Affiliated Colleges	0
Colleges Under 2(f)	0
Colleges Under 2(f) and 12B	0
NAAC Accredited Colleges	0
Colleges with Potential for Excellence(UGC)	0
Autonomous Colleges	0
Colleges with Postgraduate Departments	0
Colleges with Research Departments	0
University Recognized Research Institutes/Centers	0

<b>Is the University Offering any Programmes Recognised by any Statutory Regulatory Authority (SRA)</b>		: Yes
<b>SRA program</b>	<b>Document</b>	
PCI	<a href="#">106452_4287_6_1576041217.pdf</a>	
BCI	<a href="#">106452_4287_8_1576041230.pdf</a>	
AICTE	<a href="#">106452_4287_1_1576052437.pdf</a>	
COA	<a href="#">106452_4287_18_1576041360.pdf</a>	

**Details Of Teaching & Non-Teaching Staff Of University**

<b>Teaching Faculty</b>												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned	67				55				295			
Recruited	42	25	0	67	30	25	0	55	157	138	0	295
Yet to Recruit	0				0				0			
On Contract	0	0	0	0	0	0	0	0	0	0	0	0

<b>Non-Teaching Staff</b>				
	Male	Female	Others	Total
Sanctioned				239



Recruited	179	60	0	239
Yet to Recruit				0
On Contract	0	0	0	0

Technical Staff				
	Male	Female	Others	Total
Sanctioned				90
Recruited	67	23	0	90
Yet to Recruit				0
On Contract	0	0	0	0

### Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	1	0	0	0	0	0	0	0	0	1
Ph.D.	39	23	0	26	16	0	62	36	0	202
M.Phil.	0	0	0	0	1	0	8	4	0	13
PG	2	2	0	4	8	0	87	98	0	201

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

Part Time Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

### Distinguished Academicians Appointed As

	Male	Female	Others	Total
Emeritus Professor	2	0	0	2

Adjunct Professor	1	0	0	1
Visiting Professor	3	3	0	6

### Chairs Instituted by the University

Sl.No	Name of the Department	Name of the Chair	Name of the Sponsor Organisation/Agency
1	School of Life Sciences and Crescent Innovation and Incubation Council	Life Sciences Innovation and Entrepreneurship	BIRAC BIONEST and B. S. Abdur Rahman Crescent Institute of Science and Technology
2	Department of Polymer Engineering	Polymer Nanotechnology Centre	DST Nano Mission and B. S. Abdur Rahman Crescent Institute of Science and Technology
3	Department of Mechanical Engineering	Centre for Energy Research and Studies	Indian Renewable Energy Development Agency Limited and B. S. Abdur Rahman Crescent Institute of Science and Technology
4	Department of Chemistry	UGC Emeritus Professor	University Grants Commission

### Provide the Following Details of Students Enrolled in the University During the Current Academic Year

Program		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
PG Diploma recognised by statutory authority including university	Male	0	0	0	0	0
	Female	0	0	0	0	0
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	30	29	0	1	60
	Female	53	10	0	0	63
	Others	0	0	0	0	0
UG	Male	3691	388	32	5	4116
	Female	1226	73	8	0	1307
	Others	0	0	0	0	0
PG	Male	438	40	0	2	480
	Female	264	19	0	0	283
	Others	0	0	0	0	0

### Does the University offer any Integrated Programs?

No

### Details of UGC Human Resource Development Centre, If applicable

Year of Establishment	01-01-1970
-----------------------	------------

Number of UGC Orientation Programs	0
Number of UGC Refresher Course	0
Number of University's own Programs	0
Total Number of Programs Conducted (last five years)	0

### Accreditation Details

Cycle Info	Accreditation	Grade	CGPA	Upload Peer Team Report
Cycle 1	Accreditation	3.08	A	<a href="#">Crescent - NAAC Certificate - First Cycle.pdf</a>

### EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Department Of Aerospace Engineering	<a href="#">View Document</a>
Department Of Automobile Engineering	<a href="#">View Document</a>
Department Of Chemistry	<a href="#">View Document</a>
Department Of Civil Engineering	<a href="#">View Document</a>
Department Of Computer Applications	<a href="#">View Document</a>
Department Of Computer Science And Engineering	<a href="#">View Document</a>
Department Of Electrical And Electronics Engineering	<a href="#">View Document</a>
Department Of Electronics And Communication Engineering	<a href="#">View Document</a>
Department Of Electronics And Instrumentation Engineering	<a href="#">View Document</a>
Department Of Information Technology	<a href="#">View Document</a>
Department Of Management Studies	<a href="#">View Document</a>
Department Of Mathematics And Actuarial Science	<a href="#">View Document</a>
Department Of Mechanical Engineering	<a href="#">View Document</a>
Department Of Physics	<a href="#">View Document</a>
Department Of Polymer Engineering	<a href="#">View Document</a>
School Of Arabic And Islamic Studies	<a href="#">View Document</a>
School Of Architecture	<a href="#">View Document</a>
School Of Business	<a href="#">View Document</a>
School Of Law	<a href="#">View Document</a>
School Of Life Sciences	<a href="#">View Document</a>
School Of Pharmacy	<a href="#">View Document</a>
School Of Social Sciences And Humanities	<a href="#">View Document</a>

### QIF

#### 1. Curricular Aspects

##### 1.1 Curriculum Design and Development

***1.1.1 Curricula developed /adopted have relevance to the local/ national / regional/global developmental needs with learning objectives including program outcomes, program specific outcomes and course outcomes of all the program offered by the University***

**Answer:**

B. S. Abdur Rahman Crescent Institute of Science & Technology has 21 departments functioning under 12 schools and offer 21 undergraduate and 19 postgraduate programmes in Engineering, Science & Humanities, Architecture, Law, Pharmacy and Arts. In addition, all these departments offer Ph.D. programme. Almost, all the eligible programmes (20 = 10 UG + 10 PG programmes) are accredited by NBA, under Tier - I format.

- This institute started practicing Outcome Based Education (OBE) since 2014, the year, our country has got awarded the full signatory member status, in the Washington Accord. As a result, all the programmes of this institute have got Programme Educational Objectives (PEOs) and Programme Outcomes (POs).
- These PEOs and POs are developed, based on the thrust areas of the Government and the needs of local, national, global & industry.
- In order to achieve these POs and Programme Specific Outcomes (PSOs), all the courses in the curriculum, do have, a well-defined Course Educational Objectives (CEOs) and Course Outcomes (COs) / Graduate Attributes (GAs).
- In order to ensure the attainment of learning outcomes / GAs / required skill sets, CO - PO mapping and "assessment of attainment" are periodically conducted / reviewed.
- The assessment includes written examination, lab courses, lab integrated theory courses, industrial internship, self-learning, projects, assignments etc.,
- Curriculum facilitate students to pursue MOOC courses through NPTEL, Swayam, Futurelearn, Coursera, Edex platform.
- The various process involved in the curriculum development are furnished below :
  - The Dean (Academic Affairs) will prepare the broad curricular framework, considering the statutory council requirements, model curriculum prescribed by various agencies, global trends, bench marking with top ranked universities etc.,
  - The curriculum framework is discussed in the meeting of HoDs/Chairman of Board of Studies (BoS), Deans and Directors for further refinement / modifications.
  - The feedback from all the stakeholders including Student, Parent, Employer, Alumni, faculty & industry have been collected in the respective "School Level Advisory Committee (SLAC)" and incorporated, before getting the necessary approval from the BoS.
- The course teachers are empowered to choose appropriate teaching pedagogy to suit the needs of the course and the students.
- The various modes of feedback collection is given below :
  - Student feedback about the course - in two stages during the semester.
  - Alumni feedback is obtained through various means viz., exit feedback survey (immediately after completion of programmes), BoS, School level advisory committee, Internal Quality Assurance Cell and Academic council, etc.
  - Industry feedback - through BoS, School level advisory committee, Academic Council and Employer survey.
  - Parents' feedback - through Parent - Teachers meeting, BoS and SLAC meetings.
  - The stakeholders feedback received through Institution web portal are also considered.
- The BoS comprising of experts from Academia and Industry, deliberates and finalizes the curriculum for the respective programmes.
- The recommendations of the BoS are placed in the Academic Council to get the final refinement and the same is submitted to the "Board of Management (BoM)" for approval.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

**1.1.2 Percentage of programs where syllabus revision was carried out during the last five years**

**Answer:** 91.11

1.1.2.1 How many programs were revised out of total number of programs offered during the last five years

Answer: 41

1.1.2.2 Number of all programs offered by the institution during the last five years

Answer: 45

File Description	Document
Minutes of relevant Academic Council/BOS meeting	<a href="#">View Document</a>
Details of program syllabus revision in last 5 years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**1.1.3 Average percentage of courses having focus on Employability/ Entrepreneurship/ Skill development during the last five years**

**Answer:** 96.67

1.1.3.1 Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
2093	1995	1532	1442	1430

File Description	Document
Program/ Curriculum/ Syllabus of the courses	<a href="#">View Document</a>
MoU's with relevant organizations for these courses, if any	<a href="#">View Document</a>
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	<a href="#">View Document</a>
Average percentage of courses having focus on employability/ entrepreneurship	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**1.2 Academic Flexibility**

**1.2.1 Percentage of new Courses introduced out of the total number of courses across all Programs offered during last five years**

**Answer:** 55.14

1.2.1.1 How many new courses are introduced within the last five years

Answer: 1539

1.2.1.2 Number of courses offered by the institution across all programs during the last five years

Answer: 2791

File Description	Document
Minutes of relevant Academic Council/BOS meetings	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**1.2.2 Percentage of programs in which Choice Based Credit System (CBCS)/Elective course system has been implemented**

**Answer:** 100

1.2.2.1 Number of programmes in which CBCS/ Elective course system implemented.

Answer: 40

File Description	Document
Minutes of relevant Academic Council/BOS meetings	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 1.3 Curriculum Enrichment

**1.3.1 Institution integrates cross cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum**

**Answer:**

- This Institution being a "Deemed to be University" offers programmes in various disciplines viz., Engineering, Architecture, Law, Pharmacy, Science, Arts and Humanities.
- As a result, a holistic approach towards the education is imminent.
- Thus, integration of cross cutting issues relevant to Gender, Environment & Sustainability, Human Values and Professional Ethics are embedded into the curriculum of all the programmes offered by this institute.
- It would add the values to our students, to behave as a "socially responsible citizen" of our country.
- Accordingly, courses on "Sociology of Indian Society", "Family Law", "Communication Skills", "Personality Development", "Law for Engineers", "Professional Ethics", "Sustainability Engineering" etc., have been included in the curriculum of various programmes offered by this institute.
- These courses address the issues of gender in workplace, responsibility of all genders in relationships, families and in general, the society.

- These courses are provided to sensitize the students on respecting the women and other genders in professional and personal place.
- The courses focusing on “Environmental Studies” is made mandatory across all disciplines, as per the guidelines of UGC.
- These courses are offered to create awareness among students on protection of natural resources, ecosystem and environment to avoid/ control natural disasters.
- “Green Design & Sustainability”, “Energy Conservation”, “Renewable Source of Energy” and other such courses are offered as core and elective courses to all students across discipline.
- To inculcate human values and professional ethics, the courses such as “Sociology, Ethics and Human Values”, “Human Rights”, “Principles of Sociology”, “Sociology of Indian Society, etc. are offered across all disciplines.
- These courses are offered with the objective of inspiring students to practice their profession ethically and to understand human values and respect human rights.
- In addition, students are encouraged to participate in the periodical programmes conducted by this institute for the sensitisation of gender equity, social behaviour, environment conscious, tree plantation, water management, energy saving etc.,
- These programmes are organised by the various professional societies.
- Women empowerment both at the student level and staff level are practiced with great enthusiasm.
- In all the societies and clubs, female members are given priority for participation and conduct of programmes.
- National level functions and festivals are celebrated, in which, students of different diversity participate.
- Through NSS chapters of this institute, nearby villages and village schools are adapted and the student volunteers are made to support them in several of their activities.
- While, a recent cyclone "Vardah" had uprooted more than 600 trees in the campus, our institute has encouraged the student volunteers for tree plantation, in order to improve the green cover adequately.
- The faculty training academy of this institute periodically organises several courses, training programmes, workshops on these domains which would help our students to get acquainted in the socially relevant human values.
- The new motto of the institute viz., "We create Employers; Nurture Leaderpreneurs", helps to create an environment, for the students, to become job creators, rather than, job seekers.

File Description	Document
Upload the list and description of the courses which address the Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### ***1.3.2 Number of value-added courses imparting transferable and life skills offered during the last five years***

**Answer: 223**

#### **1.3.2.1 Number of value-added courses are added within the last five years**

**Answer: 223**

File Description	Document
List of value added courses	<a href="#">View Document</a>

Brochure or any other document relating to value added courses	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### **1.3.3 Average percentage of students enrolled in the courses under 1.3.2 above**

**Answer:** 51.43

1.3.3.1 Number of students enrolled in value-added courses imparting transferable and life skills offered year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
3608	3017	2311	2125	1986

File Description	Document
Any additional information	<a href="#">View Document</a>

### **1.3.4 Percentage of students undertaking field projects / internships**

**Answer:** 85.13

1.3.4.1 Number of students undertaking field projects or internships

Answer: 5266

File Description	Document
List of programs and number of students undertaking field projects / internships	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

## **1.4 Feedback System**

**1.4.1 Structured feedback received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni 5) Parents for design and review of syllabus Semester wise /year-wise**

**Answer:** A. Any 4 of above

File Description	Document
Any additional information	<a href="#">View Document</a>
Action taken report of the University on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	<a href="#">View Document</a>
URL for stakeholder feedback report	<a href="#">View Document</a>

### **1.4.2 Feedback processes of the institution may be classified as follows:**

**Answer:** A. Feedback collected, analysed and action taken and feedback available on website



File Description	Document
Any additional information	<a href="#">View Document</a>
URL for feedback report	<a href="#">View Document</a>

## 2. Teaching-learning and Evaluation

### 2.1 Student Enrollment and Profile

#### 2.1.1 Average percentage of students from other States and Countries during the last five years

**Answer:** 8.7

2.1.1.1 Number of students from other states and countries year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
541	506	413	378	350

File Description	Document
List of students (other states and countries)	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 2.1.2 Demand Ratio(Average of last five years)

**Answer:** 8.38

2.1.2.1 Number of seats available year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
2439	2285	1714	1638	1643

File Description	Document
Demand Ratio (Average of Last five years)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 2.1.3 Average percentage of seats filled against seats reserved for various categories as per applicable reservation policy during the last five years

**Answer:** 83.02

2.1.3.1 Number of actual students admitted from the reserved categories year-wise during the last five years

Answer:

2018-19    2017-18    2016-17    2015-16    2014-15  
 1922        1773        1247        1024        1170

File Description	Document
Average percentage of seats filled against seats reserved	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

## 2.2 Catering to Student Diversity

### 2.2.1 *The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners*

#### Answer:

- The students who get admitted to this institute, through the national level entrance examination, are given rigorous orientation programme.
- During this induction programme itself, the learning levels of the students are identified.
- In addition, after the first continuous assessment test (CAT), respective chairman of the class committees will convene a meeting, to assess the learning levels.
- Based on the performance of the students, the slow learners and advanced learners are identified.

#### Slow learners:

- If the performance of the students is relatively less in the qualifying examination itself, those students are identified and given a "Bridge Courses", even before the commencement of the regular academic classes.
- The fundamental concepts of Science, Mathematics and Communication Skills are some of the major focuses of the Bridge Course. This would enable the students to cope-up with the learning pace in the regular classes.
- Some slow learners found it difficult to manage the analytical courses. For such of these courses, "additional coaching" classes are arranged by the respective course teachers, either during the evening time or during the weekends.
- In addition, "peer-learning" classes are arranged, either by the senior students or by their own classmates, both in the institute and hostel campus.
- The peer-learning classes and additional coaching, happening at the hostel premises are arranged by the respective wardens of the hostel.
- The academic regulation has a provision for the slow learners to pace their learning, based on their individual capacity. As a result, the slow learners can register for less number of credits, in a semester, which needs the approval of the respective Head of the Department.
- Provision for "Redoing of courses" is made available, during the evening hours, subject to a maximum of two courses in a semester.
- Moreover, a "supplementary examination" is conducted, once in a year, for the slow learners, subject to a maximum of two courses per year.

#### Advanced learners :

- The academic regulation has a provision for the advanced learners to pace their learning. As a result, they can register for more number of credits, in a semester, which needs the approval of the respective Head of the Department.
- This enables the advanced learners to undertake more projects / industrial internships for a longer duration, than the specified time limit, prescribed by the curriculum of the respective programme.
- Provision for credit transfer of MOOC courses is enabled, for the students pursuing online courses through NPTEL, SWAYAM etc.,

- The Crescent Innovation and Incubation Centre (CIIC) facilitates the advanced learners to take up innovative projects / establishing start-ups etc.,
- The BSAU APPLE iOS Application Development Centre enables the students to develop "new apps" which can be uploaded in the playstore.
- Several "value added courses" are offered by the individual departments, which are open to all the students of this institute, during the non-office hours on the contemporary topics. This would facilitate the advanced learners to get additional certification from the major industries / institutions.

File Description	Document
Any additional information	<a href="#">View Document</a>
link for additional information	<a href="#">View Document</a>

### 2.2.2 Student - Full time teacher ratio

**Answer:** 14.83

File Description	Document
Any additional information	<a href="#">View Document</a>

### 2.2.3 Percentage of differently abled students (Divyangjan) on rolls

**Answer:** 0

#### 2.2.3.1 Number of differently abled students on rolls

**Answer:** 0

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

## 2.3 Teaching- Learning Process

### 2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**Answer:**

- The entire institute practices outcome based education, in which, attainment of learning outcomes is critical, for the quality enhancement.
- As a result, various teaching pedagogies are adopted by the course teachers. These pedagogies are essentially student centric, otherwise, the attainment of outcome would be less.
- Some of the student centric pedagogies include Experiential learning / Project based learning, Participative learning, Problem solving methodologies, Self-learning through MOOC courses, Flipped class room etc.,
- In the engineering programmes, substantial weightage is given to lab courses and mini & major projects, where "hands on" is the major focus.
- Industrial Internship is a mandatory requirement and it is a credited course. The students performance in the internship programme is jointly evaluated by the department and the industry.
- For some of the programme, "Self-learning" course is offered, which would be a prelude to the project work, in which the contents of a course would be jointly decided by the project students and the

supervisor.

- The students of Mechanical Engineering programme are given a course viz., "Design Appreciation", in which, the students would be required to disassemble the mechanical machineries on their own and assemble back to the original size and shape. In this process, the students would come to know, the various components including valves, rings, nuts & bolts and their significance.
- Provision is made in the regulations for crediting the courses in the MOOC platform viz., NPTEL, SWAYAM etc.,
- Design Project / Mini Project is a integral component of the curriculum in certain disciplines of this institute.
- The course "Engineering Design" is an important course across all the engineering disciplines, to inculcate domain specific interest on the design aspects.
- Lab integrated theory courses are a regular feature in most of the curriculum.
- Personality development courses, career oriented skill enabling courses and communication skills are some of the student centric initiatives, through which, students gain more advantage, when they appear for competitive exams and interviews.
- "Social Entrepreneurship" and "Leadership Skills" are new additions, keeping in mind, the interest of new generation of students, for the start-ups and offered in association with Wadhwani Foundation - NEN under online mode.
- "Crescent Innovation and Incubation Centre" is a section 8 registered company, available in the campus, catering to the needs of first generation entrepreneurs and for innovative start-ups.
- Some of the other teaching pedagogies which are popular among the course teachers, in the interest of the students include flipped class room, activity based learning, quiz, demonstration of concepts, video based learning, online learning, live case studies, role play etc.,
- In order to choose, the right kind of teaching pedagogies, for the varied section of students, "Slow and Advanced learners" are identified and accordingly, remedial coaching / value addition are imparted.
- The students are enrolled in National / International professional societies viz., IEEE, ASCE, ASME, SAE, IE(I), IETE etc., in order to enhance the all round personality of the students.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### **2.3.2 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc.**

**Answer:** 99.76

#### **2.3.2.1 Number of teachers using ICT**

**Answer:** 416

File Description	Document
List of teachers (using ICT for teaching)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Provide link for webpage describing the " LMS/ Academic management system"	<a href="#">View Document</a>

### **2.3.3 Ratio of students to mentor for academic and stress related issues**

**Answer:** 14.83

#### 2.3.3.1 Number of mentors

Answer: 417

### 2.4 Teacher Profile and Quality

#### 2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

**Answer:** 100

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	<a href="#">View Document</a>
List of the faculty members authenticated by the Head of HEI	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 2.4.2 Average percentage of full time teachers with Ph.D. during the last five years

**Answer:** 39.61

##### 2.4.2.1 Number of full time teachers with Ph.D. year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
199	149	140	133	122

File Description	Document
List of number of full time teachers with PhD and number of full time teachers for 5 years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 2.4.3 Teaching experience per full time teacher in number of years

**Answer:** 14.45

##### 2.4.3.1 Total experience of full-time teachers

Answer: 6025

File Description	Document
Any additional information	<a href="#">View Document</a>

#### 2.4.4 Percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the last five years

**Answer:** 4.83

2.4.4.1 Number of full time teachers receiving awards from state /national /international level from Government recognised bodies year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
05	05	05	02	01

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
e-copies of award letters (scanned or soft copy)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**2.4.5 Average percentage of full time teachers from other States against sanctioned posts during the last five years**

**Answer:** 20.49

2.4.5.1 Number of full time teachers from other states year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
121	84	64	58	60

File Description	Document
List of full time teachers from other state and state from which qualifying degree was obtained	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**2.5 Evaluation Process and Reforms**

**2.5.1 Average number of days from the date of last semester-end/ year- end examination till the declaration of results during the last five years**

**Answer:** 8.8

2.5.1.1 Number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
07	07	10	13	07

File Description	Document
List of programs and date of last semester and date of declaration of result	<a href="#">View Document</a>

Any additional information

[View Document](#)**2.5.2 Average percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years****Answer:** 4.57

2.5.2.1 Number of complaints/grievances about evaluation year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
219	207	252	243	188

File Description	Document
Any additional information	<a href="#">View Document</a>

**2.5.3 Average percentage of applications for revaluation leading to change in marks during the last five years****Answer:** 0

2.5.3.1 Number of applications for revaluation leading to change in marks year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

File Description	Document
Any additional information	<a href="#">View Document</a>

**2.5.4 Positive impact of reforms on the examination procedures and processes including IT integration and continuous internal assessment on the examination management system****Answer:**

- Being a quality conscious institute, the evaluation of performance of the students are done through "Continuous Assessment" and "Assessment of the Attainment of Learning Outcomes".
- To make the evaluation process robust and fool proof, the entire evaluation/ examination management system is computerised.
- The IT integration is done through a very popular ERP system -TCSion.
- As a part of the quality initiatives, several reforms have been introduced in the evaluation system and some of them are furnished below :
  - Online registration for Semester End Examination
  - Online fee payment
  - Generation of hall ticket with photograph in the web portal
  - Marks entry by the course teachers in the web portal
  - Auto compilation of Continuous Assessment mark (periodical assessments + semester end examinations) for the award of the grade
  - Result generation and Publication in Institution website
  - Online application for Photocopy & Revaluation of answer scripts

- Quick publication of results (10 days)
- Generation of mark statements with holograms
- Generation of provisional certificate
- Generation of degree certificate with tamper proof
- A student who is awarded 'U' grade (Fail grade) will have the option to redo the course under regular / evening mode when offered by the respective department.
- Centralised valuation of semester end examination answer scripts department / school wise with structured procedure for quality monitoring and to reduce/ minimize errors.
- Well-established revaluation / grievance redressal procedure for effective and speedy disposal of grievances.
- A four tier academic audit system is in place, both to monitor the quality of teaching-learning process and to improve the efficacy of the evaluation system.
  - Department Academic Audit Committee (DAAC)
  - External Academic Audit Committee (EAAC)
  - Internal Quality Assurance Cell (IQAC)
  - Academic and Administrative Audit (AAA)
- As the evaluation process is done by the respective course teacher, the above four audit processes are gaining more significance.
- The DAAC committee consists of the senior faculty members of the department, who would go through the question papers and sample answer sheets.
- The question papers are checked for the correctness, timing, traits of Bloom's taxonomy including higher order thinking skills.
- Based on the feedback given by the DAAC, the respective course teachers will incorporate the suggestions appropriately.
- Similarly, the answer sheets are audited for the unbiasedness of the evaluation process.
- In the case of EAAC, the members are drawn from the premier institutions like IITM, Anna University etc.,
- This committee will audit the complete teaching-learning process including question papers, answer sheets and course files.
- The suggestion of the committee would be suitably addressed by the respective HoD/ Dean.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 2.5.5 Status of automation of Examination division along with approved Examination Manual

**Answer:** A. 100% automation of entire division & implementation of Examination Management System (EMS)

File Description	Document
Current manual of examination automation system and Annual reports of examination including the present status of automation	<a href="#">View Document</a>
Current Manual of examination automation system	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Annual reports of examination including the present status of automation	<a href="#">View Document</a>



## 2.6 Student Performance and Learning Outcomes

### 2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the Institution are stated and displayed on website and communicated to teachers and students

#### Answer:

- As this institute is practising OBE since 2014, all the programmes are given Programme Educational Objectives (PEOs), Programme Outcomes (POs) and Programme Specific Outcomes (PSOs).
- In addition, the curriculum comprises of various categories of courses and all these courses would have Course Educational Objectives (CEOs) and Course Outcomes (COs).
- The PEOs, POs, PSOs, CEOs & COs are well-defined, established & made known to all the stakeholders of the system.
- The COs of all the courses offered by this institute are furnished in the data template form.
- The process for establishment of POs & PSOs are furnished below :
  - A team of senior faculty members of the respective department prepares the draft POs & PSOs, considering the vision & mission of the Institute and the vision & Mission of the department.
  - This team would collect the input and feedback from all the stakeholders of the system in refining the same through various categories of meetings, including School level Advisory Committee (SLAC) meetings .
  - In general, SLAC comprises of all the stakeholders including students, parents, employers, industries, alumni, teachers and others.
  - This draft would be presented by the respective programme coordinator and the HoD to a Institute level committee, which would comprise of senior academicians and others.
  - After collating the inputs from the institute level committee, the same would be presented by the respective committee in the meeting of "Board of Studies" (BoS)".
  - The recommendations of the BoS would be presented in the Academic Council for approval.
  - After approval from the Academic Council, it is presented in the Board of Management (BoM) for final approval.
- The process for establishment of CEOs & COs are furnished below :
  - A teacher, who is the subject expert would be requested by the HoD to prepare the CEOs & COs in alignment with the POs.
  - It is very vital that these COs are leading to the attainment of Programme Outcomes.
  - Hence, the respective course teacher would take suitable precautions and refer to the premier institutions in framing the CEOs & COs.
  - Then the same would be presented in the department meeting, where, all the members of the faculty are present for further refinement.
  - This would be presented in the SLAC meetings, where all the stakeholders are present.
  - This enhanced draft would be presented in the meeting of BoS.
  - The recommendations of the BoS would be presented in the Academic Council for approval.
  - After approval from the Academic Council, it is presented in the BoM for final approval.
- Once the BoM approves the PEOs, POs, PSOs, CEOs & COs, then the same would be displayed and disseminated to all the stake holders, through the following modes :
  - Web site
  - Department library
  - Notice boards of the department
  - Seminar hall
  - Classrooms
  - Laboratories
  - Curriculum & syllabus book
  - Faculty meetings
  - Orientation programmes
  - Class committee meetings
  - Placement brochures

File Description	Document
COs for all courses (exemplars from Glossary)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### ***2.6.2 Attainment of program outcomes, program specific outcomes and course outcomes are evaluated by the institution***

#### **Answer:**

- This institute practices some of the best established methodologies to assess the attainment of POs, PSO & COs and feedback is invested into the teaching-learning process, for continuous improvement.
- For each theory course in a semester, two continuous assessment tests (CAT) and one semester end examination are conducted to evaluate student's learning and performance, in addition to other modes of assessment viz., assignments, seminar, mini projects, quiz, field work, hands on etc.,
- The marks scored in these tasks are accounted in assessing the attainment levels.
- Some departments use a software tool viz., IONCUDOS - an OBE software and someothers use spread sheets.
- All relevant details like Programme outcomes, Curriculum- Theory/ Laboratory Courses, Lesson plan, Course outcomes, CO-PO Mapping, Students enrolled, Evaluation pattern, Threshold limit, CATs and End semester question paper with respect to suitable COs, etc., are recorded suitably, before and after assessment examinations.
- The course outcomes are appropriately mapped to the different questions under different sections, which are framed, taking into consideration the Bloom's taxonomy.
- In each course, the marks scored by each student corresponding to various questions of different divisions are collected (Both CATs & semester end examination) and recorded.
- Based on the performance of the students in answering these questions pertaining to various course outcomes, attainment of COs is measured.

#### **Case Study:**

#### **B.Tech(Automobile Engineering); V Semester; AUB3103, Petrol Engines**

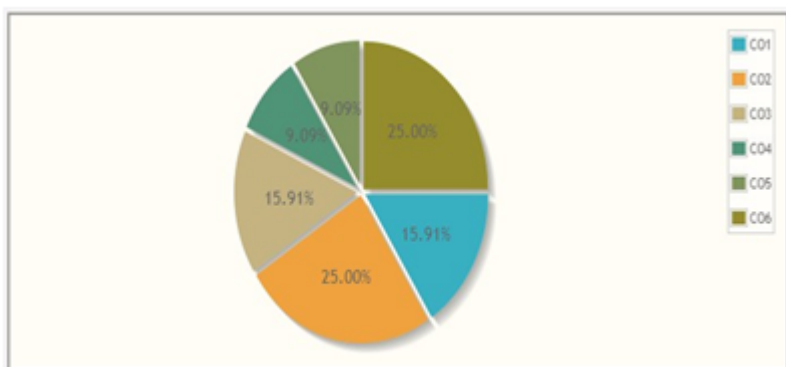
#### **Mapping of course outcomes with assessments:**

COs	CAT I*%	CAT II*%	CAT III*%	End sem*%
CO1	50			18
CO2	50			18
CO3		50		18
CO4		50	-	18
CO5			50	18

CO6		50	10
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\* %of marks in the question paper relevant to the respective outcomes may vary slightly

Question Paper Title: Semester End Examination		
Total Duration (H:M):3		
	Course:Petrol Engines[AUB3103]	Maximum Marks:176
Q.No.	CO	Marks
1	CO1	1.00
2	CO1	1.00
3	CO2	1.00
4	CO2	1.00
5	CO3	1.00
6	CO3	1.00
7	CO4	1.00
8	CO4	1.00
9	CO5	1.00
10	CO5	1.00
11	CO6	1.00
12	CO6	1.00
13	CO1	2.00
14	CO2	2.00
15	CO3	2.00
16	CO4	2.00
17	CO5	2.00
18	CO6	2.00
19a	CO1	12.00
19b	CO1	12.00
20a	CO2	12.00
21a	CO2	12.00
22a	CO3	12.00
23a	CO3	12.00
25a	CO4	12.00
26a	CO4	12.00
27a	CO5	12.00
28a	CO6	12.00
29a	CO6	16.00
30a	CO5	16.00

**Course Outcome Marks Distribution:**

- Marks scored by each student with respect to the semester end examination questions (mapped with COs) as shown below:

COs Level	Total Marks	%Distribution
CO1	28	46.67
CO2	44	73.33
CO3	28	46.67
CO4	16	26.67
CO5	16	26.67
CO6	44	73.33

student	student_usn	1(1.00m)	2(1.00m)	3(1.00m)	4(1.00m)	5(1.00m)	6(1.00m)	7(1.00m)	8(1.00m)	9(1.00m)	10(1.00m)	11(1.00m)	12(1.00m)	13(2.00m)	14(2.00m)	15(2.00m)
G. Deepa	130121601010	1	0	1	1	0	0	0	0	1	1	0	1	0	2	2
B. Akash	130121601002	0	1	0	1	0	1	0	1	0	0	0	0	0	1	2
L. Alfred	130121601003	0	1	0	1	1	0	0	0	0	0	0	0	0	0	2
B. Ashfa	130121601004	0	0	1	0	0	1	0	1	0	0	1	1	0	0	2
A. Ashraf	130121601005	1	1	0	0	0	1	0	0	1	0	0	1	0	1	2
R. Binu A	130121601006	1	1	0	1	0	1	0	0	0	0	0	1	0	1	2
J.A. Jilal	130121601009	0	1	0	1	1	1	1	1	1	0	0	1	0	1	2
S. Jaygan	130121601010	0	1	1	1	0	1	0	0	0	1	1	1	1	2	2
V. Jeeva	130121601011	0	0	0	0	0	1	0	1	0	1	1	1	1	1	2
G. Krishna	130121601012	0	1	1	1	0	1	0	1	1	1	1	1	1	1	2
T.S. Man	130121601013	0	1	1	1	0	1	0	1	1	0	0	1	0	0	2
M. Moha	130121601014	0	1	1	1	0	1	0	1	1	0	0	1	1	2	2
A. Moha	130121601015	0	1	0	1	0	1	0	1	1	0	0	0	0	1	2
A. Moha	130121601018	1	1	0	1	1	1	0	1	0	1	1	1	2	0	2
K. Mohi	130121601019	0	0	1	1	0	1	0	1	1	0	0	1	0	0	2
G. Nivas	130121601021	0	0	1	1	0	1	0	1	1	0	0	1	0	0	2
I. Patel	130121601022	0	0	1	1	1	1	0	0	1	1	1	1	2	2	2
S. Prade	130121601023	1	0	1	1	0	1	1	1	1	1	1	1	2	0	2
V. Purush	130121601024	0	1	1	0	0	1	0	0	1	1	1	1	0	0	2
M. Raj Ku	130121601025	0	0	1	0	0	1	0	1	0	0	0	1	0	0	2
S. Ravi Ra	130121601026	1	1	0	1	1	1	0	1	1	0	1	1	2	0	2
C.N. Saba	130121601027	0	0	1	1	1	1	0	1	0	0	1	1	0	0	0
N. Sai Na	130121601028	0	0	1	1	1	1	0	1	1	1	0	1	0	2	2
P.S. Saij	130121601029	0	0	0	1	0	1	0	0	1	0	1	1	0	1	2
S. Santha	130121601030	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1
I. Shaik	130121601031	1	0	0	0	0	1	0	0	1	0	0	1	0	0	2
Suhail Bi	130121601032	1	1	1	1	1	1	1	1	1	0	1	1	0	2	2
S. Syed A	130121601033	0	1	1	1	0	1	0	0	1	1	1	1	0	0	2
M. Vigne	130121601034	0	1	0	1	0	1	0	0	1	1	0	1	0	2	2
M.S. Vign	130121601035	0	1	0	1	0	1	0	1	1	0	1	1	0	0	0
A. Anish	130121602001	0	0	0	1	1	0	0	0	1	0	0	0	0	0	2
S. Farook	130121602002	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
M.J. Jaw	130121602003	0	1	0	0	0	1	0	0	1	1	1	1	0	2	2
S. Logesh	130121602004	0	0	1	0	0	0	0	1	0	1	0	1	2	2	2
M. Usama	130121602005	0	0	0	0	0	0	0	1	1	1	0	0	0	2	2
K.N. Utha	130121602006	0	0	0	0	1	0	1	1	1	1	0	1	0	0	2

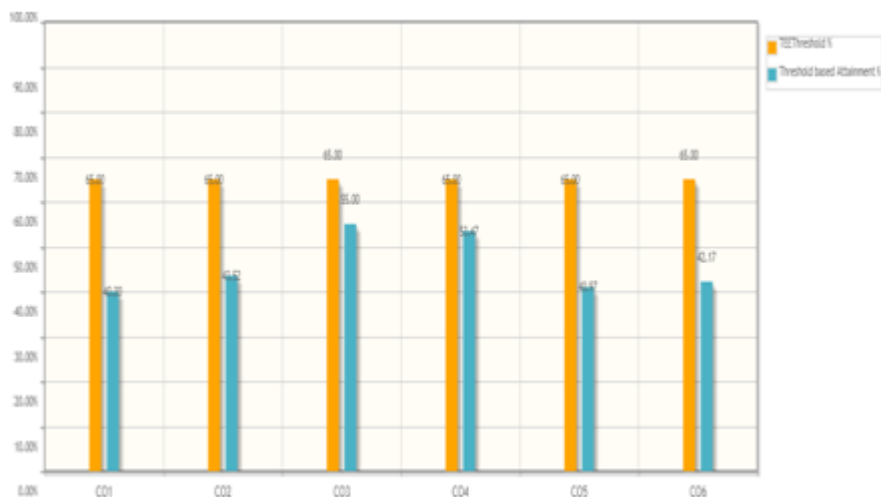
student	student_usn	16(2.00m)	17(2.00m)	18(2.00m)	19a(12.00)	20a(12.00)	21a(12.00)	22a(12.00)	23a(12.00)	24a(12.00)	25a(12.00)	26a(12.00)	27a(12.00)	28a(12.00)	29a(16.00)	30a(16.00)	total	mar
G. Deepal	130121601010	2	2	2	0	10	0	11	7	0	12	0	12	0	0	7	75	
B. Akash	130121601002	2	0	1	9	0	0	0	7	0	8	0	0	0	6	0	40	
L. Alfred	130121601003	0	0	0	6	0	6	0	9	0	10	0	0	6	0	0	42	
B. Ashfaq	130121601004	2	0	2	12	0	0	0	5	0	12	0	0	6	5	0	51	
A. Ashraf	130121601005	2	0	2	11	0	0	0	0	5	11	0	0	10	14	0	61	
R. Birnu Ad	130121601006	0	0	0	10	0	4	0	0	3	0	11	2	0	10	0	48	
J.A. Jaiash	130121601009	2	0	1	11	0	5	0	0	4	11	0	0	5	7	0	57	
S. Jaygan	130121601010	2	0	2	11	0	4	0	0	3	0	11	0	8	14	0	67	
V. Jeeva F	130121601011	2	0	2	9	0	9	0	0	11	11	0	0	5	7	0	65	
G. Krishnu	130121601012	2	2	2	12	0	0	10	12	0	0	12	0	11	0	14	96	
T.S. Manoj	130121601013	2	1	1	0	7	0	8	7	0	11	0	0	10	4	0	66	
M. Mohan	130121601014	2	0	1	9	0	0	3	7	0	9	0	0	4	0	9	54	
A. Mohan	130121601015	1	0	1	10	0	5	0	4	0	10	0	0	5	0	6	56	
A. Mohan	130121601018	2	2	2	10	0	0	0	0	11	11	0	0	5	9	0	63	
K. Mohan	130121601019	0	0	0	9	0	9	0	7	0	11	0	0	11	2	0	57	
G. Nivas C	130121601021	2	0	1	9	0	0	0	0	3	9	0	0	4	4	0	40	
I. Patel M	130121601022	2	0	2	11	0	0	11	12	0	11	0	9	0	11	0	81	
S. Pradeep	130121601023	2	0	2	0	11	0	11	7	0	12	0	0	12	14	0	83	
V. Purush	130121601024	1	0	0	10	0	0	0	7	0	10	0	2	0	4	0	43	
M. Raj Ku	130121601025	1	0	1	11	0	2	0	0	10	0	11	0	0	9	0	51	
S. Ravi Ra	130121601026	1	0	2	10	0	3	0	0	0	4	0	0	4	0	8	40	
C.N. Sabar	130121601027	0	1	2	5	0	6	0	7	0	11	0	0	7	0	0	46	
N. Sai Nar	130121601028	2	0	2	11	0	0	7	0	9	11	0	0	11	14	0	79	
P.S. Saiju	130121601029	2	0	2	10	0	7	0	0	7	9	0	0	5	10	0	66	
S. Santha	130121601030	1	0	0	10	0	0	0	8	9	0	0	0	0	10	0	42	
I. Shaik M	130121601031	0	0	0	9	0	0	0	8	0	9	0	0	5	7	0	44	
Suhail Bil	130121601032	2	2	2	0	10	0	7	0	11	11	0	0	12	15	0	87	
S. Syed A	130121601033	2	0	0	11	0	0	11	0	0	12	0	0	11	0	0	57	
M. Vignee	130121601034	2	0	0	0	11	0	10	0	8	11	0	0	9	14	0	75	
M.S. Vignee	130121601035	2	0	2	10	0	0	0	0	7	10	0	0	7	12	0	57	
A. Anish F	130121602001	0	0	0	11	0	4	0	12	0	10	0	5	0	9	0	54	
S. Farook	130121602002	0	0	0	10	0	0	8	11	0	10	0	5	0	8	0	53	
M.J. Jawar	130121602003	2	0	2	11	0	11	0	0	10	11	0	0	7	13	0	77	
S. Logesh	130121602004	2	0	0	9	0	0	0	11	0	11	0	0	12	15	0	70	
M. Usama	130121602005	2	2	0	11	0	0	0	12	0	11	0	9	0	0	0	54	
K.N. Uthai	130121602006	2	0	2	11	0	0	11	0	8	11	0	0	11	8	0	72	

Course	CIA Attainment Threshold (%)	TEE Attainment Threshold (%)
<b>Petrol Engines (AUB3103)</b>	65	65

Threshold based Attainment % = (Count of Students / Total number of Students Attempted)\*100

CO Code	TEE Threshold%	Threshold based Attainment%
CO1	65.00	40.00
CO2	65.00	43.52
CO3	65.00	55.00
CO4	65.00	53.47
CO5	65.00	40.97
CO6	65.00	42.17

The bar graph depicts the individual COs planned marks distribution and secured marks distribution as in the question paper, and its respective attainment percentage is shown below:



Course Outcomes	Max.Marks	Secured Marks	Threshold%	Attainment%
CO1	16.00	15	65.00	93.75
CO2	16.00	15	65.00	93.75
CO3	16.00	16	65.00	100.00
CO4	32.00	31	65.00	96.88
CO5	4.00	4	65.00	100.00
CO6	16.00	15	65.00	93.75
TOTAL	100.00	96.00%		

**Course Attainment: 96%**

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 2.6.3 Average pass percentage of Students

**Answer: 93.89**

2.6.3.1 Total number of final year students who passed the examination conducted by Institution.

Answer: 1275

2.6.3.2 Total number of final year students who appeared for the examination conducted by the institution

Answer: 1358

File Description	Document
List of programs and number of students passed and appeared in the final year examination	<a href="#">View Document</a>

Any additional information	<a href="#">View Document</a>
Link for annual report	<a href="#">View Document</a>

## 2.7 Student Satisfaction Survey

### 2.7.1 Online student satisfaction survey regarding teaching learning process

**Answer:** 3.97

## 3. Research, Innovations and Extension

### 3.1 Promotion of Research and Facilities

**3.1.1 The institution has a well defined policy for promotion of research and the same is uploaded on the institutional website**

**Answer:** Yes

File Description	Document
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
URL of Policy document on promotion of research uploaded on website	<a href="#">View Document</a>

### 3.1.2 The institution provides seed money to its teachers for research (average per year)

**Answer:** 51.35

3.1.2.1 The amount of seed money provided by institution to its faculty year-wise during the last five years(INR in Lakhs)

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
48.51	50.24	51.26	53.88	52.88

File Description	Document
Minutes of the relevant bodies of the University	<a href="#">View Document</a>
List of teachers receiving grant and details of grant received	<a href="#">View Document</a>
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 3.1.3 Number of teachers awarded international fellowship for advanced studies/ research during the last five years

**Answer:** 22

3.1.3.1 The number of teachers awarded international fellowship for advanced studies / research year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
14	03	03	01	01

File Description	Document
List of teachers and their international fellowship details	<a href="#">View Document</a>
e-copies of the award letters of the teachers.	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### ***3.1.4 Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates, other research fellows in the university enrolled during the last five years***

**Answer: 0**

3.1.4.1 The Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows in the university enrolled year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

File Description	Document
List of research fellows and their fellowship details	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### ***3.1.5 University has the following facilities***

- 1. Central Instrumentation Centre***
- 2. Animal House/Green House / Museum***
- 3. Central Fabrication facility***
- 4. Media laboratory/Business Lab/Studios***
- 5. Research/Statistical Databases***

**Answer:** Any four facilities exist

File Description	Document
List of facilities provided by the university and their year of establishment	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link to videos and photographs geotagged	<a href="#">View Document</a>

### ***3.1.6 Percentage of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other similar recognition by government agency***



**Answer: 0**

3.1.6.1 The Number of departments with UGC-SAP, CAS, DST-FIST ,DBT,ICSSR and other similar recognition by government agency

Answer: 00

File Description	Document
List of departments and award details	<a href="#">View Document</a>
e-version of departmental recognition award letters	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 3.2 Resource Mobilization for Research

**3.2.1 Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution during the last five years (INR in Lakhs)**

**Answer: 224.17**

3.2.1.1 Total Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year-wise during the last five years(INR in Lakhs)

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
190.34	8.40	4.80	1.84	18.79

File Description	Document
List of project and grant details	<a href="#">View Document</a>
e-copies of the grant award letters for research projects sponsored by non-government	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.2.2 Grants for research projects sponsored by the government sources during the last five years**

**Answer: 1063.94**

3.2.2.1 Total Grants for research projects sponsored by the government sources year-wise during the last five years(INR in Lakhs)

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
412.02	156.31	159.10	137.27	199.24

File Description	Document

e-copies of the grant award letters for research projects sponsored by government	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### **3.2.3 Number of research projects per teacher funded, by government and non-government agencies, during the last five year**

**Answer:** 1.03

3.2.3.1 Number of research projects funded by government and non-government agencies during the last five years

Answer: 77

3.2.3.2 Number of full time teachers worked in the institution during the last 5 years

Answer: 373

File Description	Document
Supporting document from Funding Agency	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for funding agency website	<a href="#">View Document</a>

### **3.3 Innovation Ecosystem**

#### **3.3.1 Institution has created an eco system for innovations including Incubation centre and other initiatives for creation and transfer of knowledge**

**Answer:**

Crescent Innovation & Incubation Council (CIIC) has been established as a Section-8, not for profit company and acting as a "One Stop Shop –Technology Business Incubator (TBI)" for Start-ups. A full time CEO & Director has been appointed, who has a wide experience with Corporate background.

The Office of the CIIC has formulated the following Vision and Mission statement for its functions :

#### **VISION**

- To nurture our society by nudging the entrepreneurs with integrity, sustainability and innovation

#### **MISSION**

- To facilitate the sparks of budding entrepreneurs.
- To inculcate the young student minds from ideation to start-up establishment, through mentoring.
- To bridge the start-ups with the angel investors & venture capitalists.

Under the CIIC umbrella, we have the following verticals :

### **Entrepreneurship Development Cell (EDC) –Seeding Entrepreneurship**

- It was recognized by National Science & Technology Entrepreneurship Development Board (NSTEDB) in Feb 2004 with a grant of Rs.8 lakhs.
- We have active E- cell which is the core of entrepreneurship development department, driven by the student community.

### **Dr.APJ Abdul Kalam Innovation Centre -Nurturing Entrepreneurship**

- It focuses on transforming innovative ideas into products of societal needs, by providing technical guidance, providing seed money, filing patents and helping students, to commercialize the products in the long run.

### **Crescent Innovation & Incubation Council – Demonstrating Entrepreneurship**

- CIIC facilitates entrepreneurial & innovative ecosystem to all stakeholders including the students, faculty, industry, investors and society at large.
- CIIC is presently focusing on the disruptive technologies in the domains of Industry 4.0, Mobility Transportation & Life Sciences.
- CIIC has setup 25,000 sq.ft. state-of-art facility for start-ups.
- Thrust area includes:
  - **Industry 4.0**
    - *IOT, Big Data, AI, Cyber Security, Machine Learning, Block chain, AR / VR.*
  - **Mobility & Transportation**
    - *Auto, Aero, Marine, Space, Rail, Off-highway, Defence and Manufacturing.*
  - **Life Sciences**
    - *Bio-Technology, Medical Devices & Agriculture.*
    - *IPR– Intellectual Property Rights Cell*
    - *Centre for Qualitative Research in Human Nature and Organisational Politics*
    - *Centre for Innovation in Teaching and Learning*

### **Centre of Excellences**

- IPR – Intellectual Property Rights Cell
- Centre for Qualitative Research in Human Nature and Organisational Politics
- Centre for Innovation in Teaching and Learning

The following have been achieved as on date :

- CIIC has a strong back-up of EDC predominantly run by student e-leaders, since 1999 and also Dr. APJ Abdul Kalam Innovation Centre which nurtures, early stage innovation and has funded 12 innovative projects.
- CIIC also has tie-up with Wadhwani Foundation, for providing Social Entrepreneurship Course, as a mandatory elective for all the final year students and tie-up with University of Missouri, USA for Life Sciences Innovation & Entrepreneurship course.
- CIIC is recognised as one of the Incubators, in "Start-up India Hub and Institutional Innovation Council" in the Ministry of Human Resource Development (MHRD) Innovation Cell (MIC).

- CIIC is the member of Indian Private Equity & Venture Capital Association, UBI Global, TIE Chennai and ISBA
- CIIC has been granted for **Rs.1.8 Cr BIONEST Incubator grant** from Biotech Industry Research Assistance Council (BIRAC), Department of Biotechnology, Govt of India is the single largest grant ever received by our Institute.

File Description	Document
Any additional information	<a href="#">View Document</a>
link for additional information	<a href="#">View Document</a>

### 3.3.2 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry - Academia Innovative practices during the last five years

**Answer:** 289

3.3.2.1 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
67	68	55	52	47

File Description	Document
Report of the event	<a href="#">View Document</a>
List of workshops/seminars during the last 5 years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 3.3.3 Number of awards for innovation won by institution/ teachers/ research scholars/students during the last five years

**Answer:** 207

3.3.3.1 Total number of awards for innovation won by institution/teachers/research scholars/students year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
52	42	34	36	43

File Description	Document
List of innovation and award details	<a href="#">View Document</a>
e- copies of award letters	<a href="#">View Document</a>

Any additional information	<a href="#">View Document</a>
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### 3.3.4 Number of start-ups incubated on campus during the last five years

**Answer:** 24

3.3.4.1 Total number of start-ups incubated on campus year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
15	03	03	01	02

File Description	Document
List of startups details like name of startup, nature, year of commencement etc	<a href="#">View Document</a>
e- sanction order of the University for the start ups on campus	<a href="#">View Document</a>
Contact details of the promoters for information	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 3.4 Research Publications and Awards

#### 3.4.1 The institution has a stated Code of Ethics to check malpractices and plagiarism in Research

**Answer:** Yes

File Description	Document
Any additional information	<a href="#">View Document</a>

#### 3.4.2 The institution provides incentives to teachers who receive state, national and international recognition/awards

**Answer:** Yes

File Description	Document
e- copies of the letters of awards	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 3.4.3 Number of Patents published/awarded during the last five years

**Answer:** 28

3.4.3.1 Total number of Patents published/awarded year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
19	03	04	01	01

File Description	Document
List of patents and year it was awarded	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### **3.4.4 Number of Ph.D.s awarded per teacher during the last five years**

**Answer:** 1.01

##### **3.4.4.1 How many Ph.Ds are awarded within last 5 years**

Answer: 90

##### **3.4.4.2 Number of teachers recognized as guides during the last five years**

Answer: 89

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
URL to the research page on HEI web site	<a href="#">View Document</a>

#### **3.4.5 Number of research papers per teacher in the Journals notified on UGC website during the last five years**

**Answer:** 3.53

##### **3.4.5.1 Number of research papers in the Journals notified on UGC website during the last five years**

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
285	233	244	235	318

File Description	Document
List of research papers by title, author, department, name and year of publication	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### **3.4.6 Number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings per teacher during the last five years**

**Answer:** 2.14

##### **3.4.6.1 Total number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings year-wise during the last five years**

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
104	125	170	149	251

File Description	Document
List books and chapters in edited volumes / books published	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.4.7 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index**

Answer: 4.35

File Description	Document
BiblioMetrics of the publications during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.4.8 Bibliometrics of the publications during the last five years based on Scopus/ Web of Science - h-index of the Institution**

Answer: 28

File Description	Document
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the University	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.5 Consultancy**

**3.5.1 Institution has a policy on consultancy including revenue sharing between the institution and the individual**

Answer: Yes

File Description	Document
Soft copy of the Consultancy Policy	<a href="#">View Document</a>
Minutes of the Governing Council/ Syndicate/Board of Management related to Consultancy policy	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
URL of the consultancy policy document	<a href="#">View Document</a>

**3.5.2 Revenue generated from consultancy during the last five years**

Answer: 248.24

3.5.2.1 Total amount generated from consultancy year-wise during the last five years (INR in Lakhs)

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
72.17	66.86	40.40	20.38	48.43

File Description	Document
List of consultants and revenue generated by them	<a href="#">View Document</a>
Audited statements of accounts indicating the revenue generated through consultancy	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 3.5.3 Revenue generated from corporate training by the institution during the last five years

Answer: 246.18

3.5.3.1 Total amount generated from corporate training by the institution year-wise during the last five years (INR in Lakhs)

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
55.54	36.15	24.65	48.84	81.00

File Description	Document
List of teacher consultants and revenue generated by them	<a href="#">View Document</a>
Audited statements of account indicating the revenue generated through training	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 3.6 Extension Activities

**3.6.1 Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years**

Answer:

B.S.Abdur Rahman Crescent Institute of Science & Technology promotes institution –neighborhood - community network and student engagement, contributing to good citizenship, service orientation, adopting number of villages and holistic development of students.

- The Institute provides the students with an opportunity to extend their classroom knowledge into practical experience and to sensitize students to social issues.
- Through its diverse community oriented programmes and activities focused at holistic development of students with community. Co - curricular and extracurricular activities of the Institute aims at:
  - Developing a sense among students about attachment to the community
  - Learning to utilize their knowledge in finding solutions to community problems
  - Acquiring leadership qualities and democratic attitude
  - Developing capacity and skills to meet emergencies and natural disasters.
  - The institute encourages student participation in community service by actively involving them in various campaigns and programmes



- The awareness programmes are organized with the help of students and Faculty in and around the institution
- Institute through student volunteers regularly conducts social outreach programmes. Faculty members and students are involved in organizing and participating these programmes.
- National Service Scheme (NSS) has got approval from Govt. of India, Ministry of Youth Affairs and Sports regarding initiation of National Service Scheme. Students will voluntarily participated in these activities and will encourage in improvement of various social activities as per the guidelines.
- The institute through NSS cell decides the calendar of activities that meet the objectives of the cell such as helping the society by Tree plantation, Blood donation, help to orphanages, help the government in elections, processions, Awareness programmes Flood relief, rallies as per the needs specified.
- In addition to this, the institute undertakes camp in order to help the villagers through various activities such as advocating cleanliness, computer literacy, lectures, and seminars on social aspects
- The institution has, National Service Scheme for the holistic development of the student. The students participate in all the activities of community development
- Organizing various community development activities in order to maintain a good relation with the neighborhood community.
- Institute regularly conducted the following programs through NSS:
  - Tree Plantation Drives
  - General Health/Dental/Eye related Medical camps
  - Leadership Programmes
  - Clean Drive Programmes
  - Awareness Programmes/Rallies/Campaigns
  - Personality Development programmes
  - Skill Development Programmes
  - Blood Donation Camps
  - Regular blood donation camps bring awareness to students on the value of life and their own contribution in saving the same
  - Important days celebration in and outside of the Institute
  - Flood relief Programmes
- Students are also actively participating in extension work through different clubs (NSS, Crescent Blood Donor, HRD Club, Youth Red Cross Club, Alumni Association etc.,)
- Special guidance committee are formed in beginning of the session to interact with the new entrant and parents to guide them.
- College has the policy to invite parents at the time of admission, about 92-95% parents interact with the teachers
- The Institute makes wide arrangements to prevent ragging in the Campus before and during the classes of a new batch starting.
- Fresher day, Independence Day, Republic day, Science day, Teachers day are celebrated regularly.

File Description	Document
Any additional information	<a href="#">View Document</a>
link for additional information	<a href="#">View Document</a>

### ***3.6.2 Number of awards and recognition received for extension activities from Government /recognised bodies during the last five years***

**Answer: 9**

**3.6.2.1 Total number of awards and recognition received for extension activities from Government /recognised bodies year-wise during the last five years**

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
03	02	02	01	01

File Description	Document
Number of awards for extension activities in last 5 years	<a href="#">View Document</a>
e-copy of the award letters	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.6.3 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the last five years**

**Answer:** 152

3.6.3.1 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
28	37	31	31	25

File Description	Document
Reports of the event organized	<a href="#">View Document</a>
Number of extension and outreach programs conducted with industry,community etc for the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.6.4 Average percentage of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years**

**Answer:** 53.45

3.6.4.1 Total number of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
3721	3925	3058	1870	1054

File Description	Document
Report of the event	<a href="#">View Document</a>

Average percentage of students participating in extension activities with Govt. or NGO etc.	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 3.7 Collaboration

#### 3.7.1 Number of Collaborative activities for research, faculty exchange, student exchange per year

**Answer: 0**

3.7.1.1 Total number of Collaborative activities for research, faculty exchange, student exchange year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
00	00	00	00	00

File Description	Document
Number of Collaborative activities for research, faculty etc	<a href="#">View Document</a>
Copies of collaboration	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 3.7.2 Number of linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the last five years

**Answer: 435**

3.7.2.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
70	89	85	88	103

File Description	Document
e-copies of linkage related Document	<a href="#">View Document</a>
Details of linkages with institutions/industries for internship	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 3.7.3 Number of functional MoUs with institutions of National/ International importance, Other Institutions, Industries, Corporate houses etc., during the last five years (only functional MoUs with ongoing activities to be considered)

**Answer: 127**

3.7.3.1 Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. year-wise during the last five years (only functional MoUs with ongoing activities to be considered)

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
43	24	17	18	25

File Description	Document
e-copies of the MoUs with institution/ industry/ corporate house	<a href="#">View Document</a>
Details of functional MoUs with institutions of national, international importance, other universities etc during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 4. Infrastructure and Learning Resources

##### 4.1 Physical Facilities

**4.1.1 The institution has adequate facilities for teaching - learning. viz., classrooms, laboratories, computing equipment, etc**

Answer:

The modern facilities required for the effective teaching - learning process is more than adequate and they exceed the minimum specified requirements by the various statutory bodies.

Some of the major facilities which are being used for effective teaching - learning are furnished below :

- More than 150 class rooms and 45 seminar halls are made available.
- All the class rooms and seminar halls are Wi-Fi enabled.
- Every class room and seminar hall has a provision for smartness, including LCD projector, Laptop, smart board etc.,
- Furniture available in the class room are suitable for sound learning.
- State of the art laboratories are made available for all the programs
- Student – computer ratio is 2 : 1 and the allotment ratio in the lab is 1 : 1.
- Two centralized computer centers are functioning 24 x 7 to support academic and research needs, in addition to department computer facilities.
- Well-stacked library is functioning from 08.00 am to 12.00 midnight for more than 350 days / year.
- The Library has the subscription for online resources such as e-Journals, e-Books, Databases, etc., in addition to regular books, journals, magazines, newspapers etc.,
- Digital Library is functioning 24 x 7. The staff, students and research scholars can access the E-resources, anywhere anytime through remote access.
- Department Library exists in all the schools and departments, for immediate reference by their staff, students and scholars.
- Three central facility seminar halls of capacity 300, 200, 100 each are available in the convention centre for the conduct of conferences, seminar, workshops, Institution events etc., in addition to department seminar halls.
- A state of the art convention center with 1500 seating capacity.
- Apple iOS Application Development Centre develops Mobile Applications in iOS and Android platform.

- Crescent Innovation & Incubation Council (CIIC), a Section - 8, not for Profit Company acting as a “One Stop Shop – Technology Business Incubator (TBI)” for Start-ups.
- CIIC facilitates entrepreneurial & innovative ecosystem to all the stakeholders. CIIC is presently focusing on the disruptive technologies in the domains of Industry 4.0, Life Sciences & Mobility Transportation.
- The Entrepreneurship Development Cell (EDC) is predominantly run by student leaders.
- Dr.APJ Abdul Kalam Innovation Centre nurtures early stage innovation and has funded innovative projects.
- Centre for Energy Research and Studies focuses on active research in the areas of renewable energy.
- Center for Innovation in teaching and learning supports faculty members to create e- contents for learners.
- The institute has two MOOT Courts in Crescent School of Law.
- Crescent Data Centre maintains the Institute's Network infrastructure, comprises of the state of art high end Blade Servers, Rack Servers and SAN storage (10TB) facility worth of Rs. 1 Crore has been established.
- Polymer Nano Technology was inaugurated by Bharat Ratna Prof. Dr. C N R Rao and carries out cutting edge researches.
- Additional computer central facilities are made available at Men's and Women's hostel during non-office hours.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

**4.1.2 The institution has adequate facilities for sports, games (indoor, outdoor), gymnasium, yoga centre etc., and cultural activities**

**Answer:**

The facilities available for sports, games (Both indoor and outdoor), gymnasium, yoga and cultural activities are more than adequate and the same is being evident by large number of participation by the students and their achievements in terms of winning medals and awards in these categories.

- The norms and procedures prescribed by the Sports Authority of India (SAI), as well as, various sports and games Federations of India are practiced in letter and spirit to organize quality tournaments and sports events.
- Some of the major sports facility available are furnished in the following table :

Sl. No.	Sports	Area (sq.m)
1.	400 m Athletic track with full facility including gallery	16,320
2.	Football Ground	9,900
3.	Basketball court with floodlight	420
4.	Volley Ball court	162
5.	Ball Badminton	576
6.	Tennis court	616
7.	Badminton Court	164
8.	Throwball Court	218
9.	Tennikoit	82

10.	Cricket Practice Pitch	88
11.	Swimming Pool	300
12.	Fitness Center with full Equipments	187
13.	Indoor Hall (Table tennis Carrom and Chess)	180

### Gymnasium facilities :

Sl. No.	Gym Facility	Area (sq. m)
1.	Central Gymnasium facility worth about more than Rs. 1.2 crore	210
2.	16 Station Gymnasium with weight Lifting Equipments (Men's Hostel)	288
3.	Gymnasium with Equipment (Women's Hostel)	55

### Faculty :

- Director of Physical Education – 1
- Physical Training Instructor – 1
- Fitness Instructor and Trainer – 1

### Qualified Coaches :

The institute has qualified coaches for the following sports :

- Football
- Cricket
- Volley ball
- Kabaddi
- Basket ball

### Sports Scholarship :

- In order to encourage the sports culture, special scholarships are awarded to the potential sports persons.
- So far, 115 sports scholarships are awarded in the last five years.
- Cash prizes are also awarded for the outstanding achievements during the period of study.

### Coaching Camps :

- Coaching Camps are being organized regularly for the following events :
  - Foot Ball (M), Basket Ball (M), Ball Badminton(M & W), Cricket(M), Kabaddi (M), Volleyball (M&W), Badminton (M&W), Tennikoit (W), Table Tennis (M&W), Chess and Athletics (M&W) to improve the Individual and team skills and fitness level to get the best results in the Inter University Competitions.

**Cultural Activities :**

- B.S.Abdur Rahman Crescent Institute of Science & Technology has a rich history in organising State level / National level cultural events periodically, which are very popular because of the facilities and ambience provided.
- The institute has an exclusive ISTD club to support and facilitate student's cultural activities at various levels.
- The annual mega event "Orion" is being conducted every year.
- Our students have participated in the various such cultural events organised by other Universities, both at the state and national level and brought several accolades to the Institute.
- The Institution has Convention Centre to facilitate cultural activities with a seating capacity of 1500.

File Description	Document
Any additional information	<a href="#">View Document</a>
link for additional information	<a href="#">View Document</a>

**4.1.3 Percentage of classrooms and seminar halls with ICT - enabled facilities such as smart class, LMS, etc****Answer:** 100**4.1.3.1 Number of classrooms and seminar halls with ICT facilities****Answer:** 203

File Description	Document
Number of classrooms and seminar halls with ICT enabled facilities	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for additional information which is optional	<a href="#">View Document</a>

**4.1.4 Average percentage of budget allocation, excluding salary for infrastructure augmentation during the last five years.****Answer:** 29.22**4.1.4.1 Budget allocation for infrastructure augmentation, excluding salary year-wise during the last five years (INR in Lakhs)****Answer:**

2018-19	2017-18	2016-17	2015-16	2014-15
894.07	841.58	736.68	535.72	983.92

File Description	Document

Audited utilization statements	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

## 4.2 Library as a Learning Resource

### 4.2.1 Library is automated using Integrated Library Management System (ILMS)

**Answer:**

**Yes**

- The Library is fully automated from the year 2005.
- Currently, TCSiON is the ILMS, <https://www.tcsion.com/dotcom/TCSSMB/Login/login.html>
  - Nature of Automation : Full
  - Year of automation : 2005
  - ILMS (TCSiON) Version : 14.01
- The Central Library is working from 08.00 am to 12.00 Midnight on all the working days.
- The library is also functioning on Saturdays and Sundays from 09.00 am to 05.00 pm.
- Digital Library of the Institute is functioning 24 x 7 on all the 365 days.
- The library has good collection of books, journals, non-book materials, etc., in the discipline of Engineering, Technology, Pharmacy, Law, Management, Architecture, Science & Humanities etc.,
- Library OPAC (Online Public Access Catalogue) can be accessed through the internet.
- Books transactions are done from 8.30 am to 11.00 pm.
- The Library is member of
  - DELNET (Developing Library Network)
  - MALIBNET (Madras Library Network)
  - British Council Division, Chennai
  - American Information Resource Centre, Chennai &
  - Structural Engineering Resource Centre (CSIR-SERC), Chennai.
- The Library is also a member in National Digital Library (<https://ndl.iitkgp.ac.in/>) (NDL).
- The Library subscribes following e-Journals through eShodhsindhu (<http://ess.inflibnet.ac.in/>).
  - ASCE
  - ASME
  - Bentham Science
  - IEEE
  - SAE
  - EBSCO Art & Architecture
  - EBSCO Business Source Complete
  - Manupatra
  - Royal Society of Chemistry
  - Springer
- All these e-Journals can be accessed anywhere anytime through 'remote access'.
- Our Institution has signed MoU with Shodhganga (<http://shodhganga.inflibnet.ac.in/>) to upload PhD theses into the repository, as directed by UGC.
- 21 Department Libraries are available (all the departments offering PG programme have a department library) for immediate reference by their staff, students and scholars.
- Our Institution has taken right measures to make the campus as 'Plagiarism free' for its scholarly communication. The Library has also been provided Turnitin software to check plagiarism.
- The Library has institutional repository.
- D space, an open source software has been used for this purpose. eBooks, project reports, lab manuals, etc., can be accessed.
- Library conducts 'Annual Book Exhibition', regularly, which enable our staff, research scholars and students to go through hundreds of titles of their area of interest under one roof.
- Additional membership card is issued to the topper in university exams (per class), as a token of appreciation.



- The Central Library has its own portal to know the entire details of library such as working hours, collections, details on e-journals, online courses, OPAC, open access journals, staff details etc., the portal can be access through institute home page <http://bsau-library.blogspot.in/>.
- The library is also equipped with Educational Audio & Video Cassettes, CD ROMs, Back Volumes, Project Reports / PhD thesis etc. A number of guides are available in reference section for preparation of competitive exams like GATE, Civil Service Exam, TOEFL, GRE, GMAT, Defense Service exam and similar exams.
- The Library conducts 'orientation program', regularly on Library systems and services, e-resources, remote access, etc. for effective utilization.

File Description	Document
Any additional information	<a href="#">View Document</a>
link for additional information	<a href="#">View Document</a>

#### ***4.2.2 Collection of rare books, manuscripts, special reports or any other knowledge resource for library enrichment***

##### **Answer:**

- The Central Library of our institute possess rare collection of books in Engineering, Law, Islamic Studies, Science & Humanities.
- These books could be valuable resources for our user community, particularly for the research scholars.
- More than 350 rare collection books are available in the library and the same is furnished as per the template in the "upload any additional information".
- Some of them are listed below :
  - Introduction To Atomic Spectra (1934)
  - A Treasury Of Science (1943)
  - Science At War (1943)
  - Creative Evolution (1944)
  - Elementary Metallurgy And Metallography (1949)
  - Science Past And Present (1949)
  - Mathematicians Delight( 1950)
  - Mechanical Engineers Handbook Power Volume (1950)
  - Electrical Transmission & Distribution (1950)

File Description	Document
Any additional information	<a href="#">View Document</a>
link for additional information	<a href="#">View Document</a>

#### ***4.2.3 Does the institution have the following***

- 1. e-journals***
- 2. e-ShodhSindhu***
- 3. Shodhganga Membership***
- 4. e-books***
- 5. Databases***

**Answer:** Any 4 of the above

File Description	Document
Details of subscriptions like e-journals,e-ShodhSindhu,Shodhganga Membership etc	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**4.2.4 Average annual expenditure for purchase of books and journals during the last five years (INR in Lakhs)**

**Answer:** 15.86

**4.2.4.1 Annual expenditure for purchase of books and journals year-wise during the last five years (INR in Lakhs)**

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
14.48	8.51	12.05	23.95	20.29

File Description	Document
Details of annual expenditure for purchase of books and journals during the last five years	<a href="#">View Document</a>
Audited statements of accounts	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**4.2.5 Availability of remote access to e-resources of the library**

**Answer:** Yes

File Description	Document
Any additional information	<a href="#">View Document</a>

**4.2.6 Percentage per day usage of library by teachers and students**

**Answer:** 42.66

**4.2.6.1 Number of teachers and students using library per day over last one year**

Answer: 2817

File Description	Document
Any additional information	<a href="#">View Document</a>

**4.2.7 E-content is developed by teachers :**

1. For e-PG-Pathshala
2. For CEC (Under Graduate)
3. For SWAYAM

**4. For other MOOCs platform****5. For NPTEL/NMEICT/any other Government Initiatives****6. For Institutional LMS**

**Answer:** Any 2 of the above

File Description	Document
Details of e-content developed by teachers for e-PG-Pathshala, CEC (UG)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Give links or upload document of e-content developed	<a href="#">View Document</a>

**4.3 IT Infrastructure****4.3.1 Institution frequently updates its IT facilities including Wi-Fi**

**Answer:**

The IT & ICT facilities required for the Academic, Research & Extension activities of this institute are continuously monitored and periodically upgraded, based on the requirement and needs.

- More than 3200 computers (desktop & laptop) are made available exclusively for the students and the computers are provided at 1 : 1 ratio in the laboratories.
- The internet connectivity to the campus is provided by "National Knowledge Network" through National Mission on Education through Information and Communication and Technology (NMEICT) scheme.
- The bandwidth for the internet connectivity is provided at 1 Gbps.
- Alternate internet connections are also provided through another two internet service providers.
- Over 3200+ LAN points were augmented across the campus computer and office spaces.
- The campus backbone network was upgraded from 100 MBPS to 1GBPS backbone and Wi-Fi access points over 430+numbers were deployed across the campus in both academic blocks and hostel blocks for 24 x 7 internet service for enabling students and faculty to stay connected and access the academic content, anywhere in the campus.
- A state - of - art Data Centre was built with an area of 2000 sq.ft to managing network operations efficiently and hosted all the Rack & Blade servers with continuous power supply.
- Server infrastructure includes high power computing 5 Rack and 4 Blade Servers with 10 TB capacity of SAN storage & virtual tape library for backup.
- Many of the commonly used licensed software are made available centrally at the Data Centre and the facility is extended to all the users, across the departments.
- Implemented VMware virtualization solution to enhance the Server availability for the various applications hosted on Campus, to increase the Server's space and performance on the fly, as and when needed.
- An exclusive centralized Service Desk viz., "Computer Maintenance Cell" (CMC) consisting of all the system staffs will work under one roof taking care of the Network, Hardware, Software, Projector and UPS maintenance activities of the Institution.
- In this connection, email ids are created for the queries related to system services, Network Issues and Hardware Issues.
- The Cyberoam 1500 iNG unified thread management (UTM) facility is provided to handle anti-spam, anti-spyware, user authentication, content filtering, network security and other related services.
- The same has been deployed for handling enhanced load on Network and Applications catering to Academic and Administrative processes, thereby providing a secured campus.
- Network Additional 500E Fortigate Firewall is also commissioned for scalability and other extension of services.

- Through the IT facilities available, the contents of the digital library of this institute are extended to all the students, scholars & staff members, 24 x 7.
- The Centre for Innovative Teaching & Learning (CITL) uses IT & ICT infrastructure and provide contents for learning, anytime, anywhere basis.
- Many of the institute programmes including convocation ceremony are webcasted live, using the IT infrastructure available.
- Annual Maintenance Contract for Servers & UPS.
- Biometric attendance for Staff members.

File Description	Document
Any additional information	<a href="#">View Document</a>
link for additional information	<a href="#">View Document</a>

#### 4.3.2 Student - Computer ratio

**Answer:** 1.9

File Description	Document
Any additional information	<a href="#">View Document</a>

#### 4.3.3 Available bandwidth of internet connection in the Institution (Lease line)

**Answer:**  $\geq 1$  GBPS

File Description	Document
Any additional information	<a href="#">View Document</a>

#### 4.3.4 Facilities for e-content development such as Media Centre, Recording facility, Lecture Capturing System (LCS)

**Answer:** Yes

File Description	Document
Facilities for e-content development such as Media Centre, Recording facility,LCS	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link to photographs	<a href="#">View Document</a>

#### 4.4 Maintenance of Campus Infrastructure

##### 4.4.1 Average Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, as a percentage during the last five years

**Answer:** 14.05

4.4.1.1 Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year-wise during the last five years (INR in Lakhs)

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
270.48	655.42	310.40	276.11	361.37

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic facilities	<a href="#">View Document</a>
Audited statements of accounts.	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.**

Answer:

**Yes.**

There are established systems and procedures for maintaining and utilizing physical, academic and support facilities. The responsibilities are shared by various authorities of the institute viz., Professor-in-charge of the lab, Librarian, Physical Education Director, Head of the Department, Dean, Director, Coordinator etc., under the overall leadership of the Vice Chancellor. The systems & procedures are given below :

#### **Laboratory :**

- The 100+ laboratories available in this institute are maintained and nurtured by the Staff-in-Charge of lab, under the direct supervision of Head of the Department.
- The annual budget for new procurement and maintenance is raised by the staff-in-charge of the lab, every year for approval by the budget committee, headed by the Registrar.
- The lab instructor, store keeper, lab technician, lab assistant etc., are available, depending on the requirement and they are empowered to ensure the working condition of lab equipment & accessories.
- The essential 24 x 7 used gadgets like Servers in the Data Centre, UPS in different laboratories are maintained, through AMC agreement, by external agencies.
- The calibration of the measuring instruments are periodically carried out with the assistance of "Crescent Calibration Centre".
- "Electronics Service Centre" of Electronics & Communication Engineering Department will offer servicing of Lab equipment like Regulated Power Supply, Dual Power Supply, Cathode Ray Oscilloscope, Function Generator, Digital Trainer Kit, Decade Resistance Box, 8085 Microprocessor Kit. This centre also provides PCB Fabrication and Troubleshooting of PC, Laptop, Installation of OS and Software.
- The "Instrumentation Calibration Centre" is equipped with latest calibration equipments of International standards to calibrate equipment measuring Pressure, Temperature, Digital Multimeter and Multifunction calibrator (To calibrate current, voltage, Thermocouple, Resistance Temperature Detector etc.,).
- "Electrical Service Centre" of Electrical & Electronics Engineering Department will offer Motor winding fault service, Fan repair service, Tube light fault services and servicing of other electrical Gadgets present in University campus.
- The "lab indent form" is required to be filled by the student / scholar before availing the utilisation of the equipment.
- The "Annual Stock Verification" is carried out every year by the Office of the Registrar, to take stock of the equipment available, its current status etc.

- In the Research Laboratories including Central Instrumentation Centre, the scholars are required to make entry in the log book, which needs the approval of the respective lab-in-charge.
- Whenever a lab equipment is taken outside either for repair / service / external usage, a gate pass need to be issued by the concerned authorities.
- A well-established purchase procedure / SOP is made known to all the stakeholders, by the "Budget & Costing Committee (BCC)".

### **Library :**

The Central Library of the Institute is stacked with thousands of books and periodicals. These materials have been arranged neatly in the prescribed order.

- All the members of the Institution are eligible to get library membership.
- Library users have to register their details in the entry register, whenever they visit.
- Faculty, staff, students, research scholars of the Institution need to fill up library membership form with the certification of authorities, thereafter, library membership cards will be issued.
- The students can use the borrowed book(s) upto 21 days time, and faculty members can use the books upto a semester. The book(s) can be renewed, if there is no reservation for the particular book.
- Late return of the book will earn fine of Rupee one, per day.
- Valid ID card must for utilizing library services and reference books and periodicals will not be issued.
- The borrower is the responsible for the book(s) borrowed against their membership.
- Current awareness service is being done through online.
- News about conference / seminar and workshop is being sent to various user groups by online.
- Staff / research scholars / students can use digital library for their academic and research purpose.
- A well-established book purchase procedure is available.
- Librarian will call for books and journals requirement
- "Library Advisory Committee" comprising of external experts and "Library Committee" comprising of representatives of all the departments of this institute are functioning effectively to improve the user experience.
- Department requirements are checked for duplication
- Requirements will be sent to BCC for purchase
- Part of purchased books will be transferred to the Department/School Library.
- Annual stock verification is being carried out regularly.
- Pest control is being done regularly.

### **Sports Facility :**

- Well-qualified and experienced sports authorities are available in the campus, to take care of the sports, games & gymnasium needs of the students.
- The play grounds are maintained by the institute's estate office under the direct supervision of Director (Physical Education).
- Gym trainers are available in the gymnasium to take care of the gym equipment and the trainees.
- An exclusive budget is available for the new procurement of sport equipment and maintenance of the same.

### **Computer Maintenance Cell - CMC :**

- The Computer Maintenance cell consisting of 20 system staffs, taking care of the Network, Hardware, Software, Projector and UPS maintenance activities of the Institution.

- Email ids are created for facilitating the smooth operations of system services, Network and Hardware Issues.

### Estate Office :

- Estate office with in-house and outsourced strength of 350 staff manages the day-to- day maintenance activities to keep all systems and services healthy at all times.
- The various activities include Event Management, Furnishing & Furniture, Horticulture, Fleet Management, Security, House Keeping, Civil Maintenance, New Projects, Mechanical/Plumbing/STP/WTP/RO, Electrical/Lifts/Solar Plants, Air conditioning, Telephone System, Interior works, Hostel Management, Canteen Management.

### Preventive Maintenance :

- Preventive Maintenance checks are carried out as per predefined frequency schedule to ensure power supply, standby power supply, water supply, elevators, Air conditioning, Firefighting Systems, First Aid Kits, Sewage Treatment Plant, and Water Treatment Plant are always in good working conditions. Routine cleaning activities are carried out as daily basis and periodically.
- Near 100% uptime is maintained in providing power supply, standby power supply, water supply and Elevators services.

File Description	Document
Any additional information	<a href="#">View Document</a>
link for additional information	<a href="#">View Document</a>

## 5.Student Support and Progression

### 5.1 Student Support

#### 5.1.1 Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years

**Answer:** 6.08

5.1.1.1 Number of students benefited by scholarships and freeships provided by the Government year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
285	316	341	270	286

File Description	Document
Upload self attested letter with the list of students sanctioned scholarships	<a href="#">View Document</a>
Average percentage of students benefited by scholarships and	<a href="#">View Document</a>

freeships provided by the Government during the last five years	
Any additional information	<a href="#">View Document</a>

**5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution besides government schemes during the last five years**

**Answer:** 21.42

5.1.2.1 Total number of students benefited by scholarships, freeships, etc provided by the institution besides government schemes year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
1451	1345	1173	822	632

File Description	Document
Any additional information	<a href="#">View Document</a>

**5.1.3 Number of capability enhancement and development schemes –**

1. **Guidance for competitive examinations**
2. **Career Counselling**
3. **Soft skill development**
4. **Remedial coaching**
5. **Language lab**
6. **Bridge courses**
7. **Yoga and Meditation**
8. **Personal Counselling**

**Answer:** 7 or more of the above

File Description	Document
Details of capability enhancement and development schemes	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link to Institutional website	<a href="#">View Document</a>

**5.1.4 Average percentage of students benefited by guidance for competitive examinations and career counselling offered by the institution during the last five years**

**Answer:** 82.29

5.1.4.1 Number of students benefited by guidance for competitive examinations and career counselling offered by the institution year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
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4109 4126 3320 4254 4553

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### ***5.1.5 The institution has an active international students cell to cater to the requirements of foreign students***

#### **Answer:**

The Office of Director (International Affairs) co-ordinate the various activities of International students, starting from Admission to the award of Degree”, in addition to inducting Foreign faculty members as "Affiliate Faculty".

- All the programmes offered by this institute are open to International Students, provided they meet the eligibility criteria of the respective programme.
- Regulatory authorities' (eg. AICTE) approval is obtained for the specific number of seats for Foreign Nationals / Overseas Citizens of India / Persons of Indian Origin / Children of Indian Workers in Gulf Countries / Non-Resident Indians etc.,
- Disseminating the relevant information to the International Students, seeking admission at this institute and acting as a facilitator.
- Liaisoning with the Admission office for the documents needed for the study, including valid VISA and Passport.
- Registration of visiting students and faculty members through appropriate “C-Form and S-Form” in the web portal of Bureau of Immigration, Ministry of Home Affairs, Government of India.
- Supporting the International Visitors through Invite Letters, Reception, Airport pick up and drop, Hostel Accommodation, provision of Health and Welfare, Orientation Programme, Counseling etc.
- Arranging the visit of students to the respective Consulate Embassies.
- Vision and Mission statements of the Office of Director (ARIA) include identification and enrollment of Affiliate faculty, encouraging & entertaining the inflow of International students.
- Preparation of necessary documents for the draft MOU and other legal requirements and facilitating the same, in order to enter into an agreement with a foreign university / organization
- Arranging periodical expert lectures with the International Faculty members by liaisoning with various Consulate Offices in and around Chennai.
- Facilitating Foreign Faculty members to offer “One / Two / Three credit” courses for the students of this institute, periodically.
- In order to attract international students and to ensure quality of the programmes offered by this institute, this institute is voluntarily participating in various National and International Accreditation, Rating and Ranking processes, such as QS – STAR Rating, QS I Gauge Rating, NAAC Accreditation for the Institute, NBA Accreditation for 20 of its programmes, NIRF / India Ranking etc.,
- Acting as a co-ordinating agency for all International Communication.
- Enrolled as a Institute Member in the Association of Common Wealth Universities (ACU).
- Participating in the various programmes organized by ACU to enhance the visibility of this institute
- Offering “Common Wealth Scholarships” (02 for PG, 02 for Ph.D and 01 for Academic Staff) to International Students through the Association of Common Wealth Universities (100% Tuition Fee waiver, local hospitality and limited to actual duration of the Programme).
- Nodal agency for managing all the existing International Collaborations
- Pro-active in seeking new collaborations with International Universities and organisations.
- Encouraging and facilitating “Study Abroad Program” for the International Students (example : Study Abroad Program by the Students of Purdue University, USA, in the years 2011, 2013, 2015 and by the students of various universities of Australia (Curtin University, Deakin University) and Malaysia (UiTM, UNIMAS, PPKS).

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

**5.1.6 The institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases**

**Answer:** Yes

File Description	Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	<a href="#">View Document</a>
Details of student grievances including sexual harassment and ragging cases	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**5.2 Student Progression**

**5.2.1 Average percentage of placement of outgoing students during the last five years**

**Answer:** 76.83

**5.2.1.1 Number of outgoing students placed year-wise during the last five years**

**Answer:**

2018-19	2017-18	2016-17	2015-16	2014-15
803	1022	895	1101	1112

File Description	Document
Self attested list of students placed	<a href="#">View Document</a>
Details of student placement during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**5.2.2 Percentage of student progression to higher education (previous graduating batch)**

**Answer:** 7.12

**5.2.2.1 Number of outgoing students progressing to higher education**

**Answer:** 98

File Description	Document
Upload supporting data for student/alumni	<a href="#">View Document</a>

Details of student progression to higher education	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**5.2.3 Average percentage of students qualifying in State/ National/ International level examinations during the last five years (eg: NET/ SLET/ GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)**

**Answer:** 83.55

5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: NET/ SLET/ GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil services/ State government examinations) year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
23	33	15	22	20

5.2.3.2 Number of students appearing in state/ national/ international level examinations (eg: NET/SLET/GATE/GMAT/CAT, GRE/TOEFL/ Civil Services/State government examinations) year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
33	51	15	22	24

File Description	Document
Upload supporting data for the same	<a href="#">View Document</a>
Number of students qualifying in state/ national/ international level examinations during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**5.3 Student Participation and Activities**

**5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) during the last five years**

**Answer:** 39

5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
14	13	04	01	07

File Description	Document
Number of awards/medals for outstanding performance in sports/cultural activities at national/international level during the last five years	<a href="#">View Document</a>
e-copies of award letters and certificates	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### ***5.3.2 Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution***

#### **Answer:**

- With the objective of inculcating the qualities of leadership, organization, commitment & responsibility in the students, an active Student Council is in place.
- In general, this student council will initiate & organise all the activities of the students, under the guidance of Faculty Proctors and Dean (Student Affairs).
- The representation of 18 student members would be from different disciplines, gender, nativity etc.,
- The additional details of the student council can be found from <https://crescent.education/student-affairs/student-council/>
- Due representation of students is given in the various academic bodies of this institute including Class Committee, School Level Advisory Committee, Board of Studies, Academic Council, IQAC etc.
- Almost 50% of the composition of Class Committee comprises of student members. For each class committee, 6 student representatives of each class would be nominated by Head of the Department in consultation with respective faculty advisors.
- In the institute's quality control mechanism, class committee is the fundamental and important building block. In such an important academic body, 50% of the representation is done by the students.
- It is the class committee which takes a consensus decision on the teaching pedagogies, rubrics for evaluation, types & no. of assessments & assignments etc., which is the trucks of teaching-learning-evaluation process.
- In another academic forum viz., Library Committee 3 student members are nominated every year, 1 from UG, 1 from PG and 1 from research scholars.
- The Board of Studies of some of the departments consists of student nominations and they have equal right in the process of formulation of curriculum & syllabus contents. In fact, two student members would be nominated from each programme to the Board of Studies.
- A School Level Advisory Committee (SLAC), which is the only body comprises of all the stake holders viz., Students, Parents, Industry, Employers, Alumni etc., and which is very vital in the process of Outcome Based Education, essentially consists of 2 to 4 student members.
- The Internal Quality Assurance Committee (IQAC) also has a student representation, which makes many of the quality policies & initiatives.
- The Academic Council of this institute an apex body of the Academic Affairs comprises of 5 student members. It is the council which takes a final call on the Regulation, Curriculum, Syllabus, Evaluation, Award of Degree etc.,
- The Placement Committee also has student representatives, thereby the views of student community is ensured in the Placement & Career related activities.
- The administrative bodies such as Hostel Management Committee, Student Welfare Committee, Grievance Redressal Cell etc., have student representations.
- The ISTD Chapter of Crescent organises various cultural, literary & co-curricular activities, nurturing the innate talent of the student community, fully comprises of student members.
- The Social forum & NSS clubs voluntarily organises several extra-curricular activities and society related events, consists essentially student members.
- In addition, student representation is ensured both in the professional societies viz., IEEE, ASME, ASCE etc., and clubs like Rotract club, Literary Club, YRC, Writers Inc etc.,

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 5.3.3 Average number of sports and cultural activities / competitions organised at the institution level per year

**Answer:** 50

5.3.3.1 Number of sports and cultural activities / competitions organised at the institution level year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
41	51	50	51	57

File Description	Document
Report of the event	<a href="#">View Document</a>
Number of sports and cultural activities / competitions organised per year	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 5.4 Alumni Engagement

**5.4.1 The Alumni Association/Chapters (registered and functional) contributes significantly to the development of the institution through financial and non financial means during the last five years**

**Answer:**

- The Alumni Association of the Institute was formed in the year 2000 and has been registered with The Registrar of Societies.
- All the graduating students would become members of the Alumni Association, after the respective convocation ceremony.
- The Alumni association has 6 active chapters viz.,
  - USA
  - Singapore
  - Oman
  - UAE
  - Australia
  - Qatar, in addition to the Indian Chapter.
- As many of our alumni have professionally grown to occupy several enviable positions across the globe, they contribute their mite to the following activities, but not limited to :
  - Lending helping hand to the juniors who pursue higher studies in foreign universities.
  - Offer guest lecture / 1 credit course to the present students on their area of expertise.
  - Extending support for the internship and placement assistance.
  - Helping the junior students through networking.
  - Providing scholarship to the economically weaker students.
  - Organises alumni reunion & annual general body meeting every year.

- Prepares alumni directory
- Alumni network supports the students in project work, higher studies, competitive exam etc.,
- Acting as brand ambassadors for our institute
- During the last five years their financial contribution is over Rs. 60 lakhs, which are mainly used for the scholarships and other schemes.
- In addition, the alumni association is planning to construct an alumni guest house inside the campus.
- Some of the alumni have donated books to the department library.
- The alumni Association also conducts several social events. Some of them are furnished below :
  - Tour De Crescent (An Annual Cycling event for General public and students)
  - Scholarship
  - Green Initiative
  - Blood Donation
  - Crescent Badminton League
- Several alumni through their positions do contribute to the society. In one of the recent flood havoc at Chennai, one of alumni Mr. Yousuf vigorously carried out flood relief activity, because of which he got awarded Tamil Nadu Chief Minister's Special recognition award.
- In another incident, one of our alumni while serving as District collector at Kannur, Kerala has revolutionized the village administration through social media , for which he got awarded.
- The alumni association has instituted "Distinguished Alumnus Award" and the same is awarded every year to an alumnus, who has made a significant contribution in the professional career.
- In recognition of the achievements of the alumni, the respective departments have introduced a "Wall of Fame" banner and the same is displayed in the web page of the department.
- The alumni association is also contemplating a "Junior Mentoring Scheme", which would become a reality, soon.
- In addition, periodical newsletters of the alumni association is also envisaged

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

#### 5.4.2 Alumni contribution during the last five years (INR in Lakhs)

**Answer:**  $\geq 100$  Lakhs

File Description	Document
Any additional information	<a href="#">View Document</a>
Alumni association audited statements	<a href="#">View Document</a>

#### 5.4.3 Number of Alumni Association / Chapters meetings held during the last five years

**Answer:** 60

##### 5.4.3.1 Number of Alumni Association /Chapters meetings held year-wise during the last five years

**Answer:**

2018-19    2017-18    2016-17    2015-16    2014-15

File Description	Document
Report of the event	<a href="#">View Document</a>
Number of Alumni Association / Chapters meetings conducted during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

## 6. Governance, Leadership and Management

### 6.1 Institutional Vision and Leadership

#### 6.1.1 *The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the University*

#### Answer:

#### Vision :

B. S. Abdur Rahman Crescent Institute of Science and Technology aspires to be a Leader in Education, Training and Research in multidisciplinary areas of importance and to play a vital role in the Socio-Economic progress of the Country in a sustainable manner.

#### Mission :

- To blossom into an internationally renowned Institute.
- To empower the youth through quality and value-based education.
- To promote professional leadership and entrepreneurship.
- To achieve excellence in all its endeavors to face global challenges.
- To provide excellent teaching and research ambience.
- To network with global Institutions of Excellence, Business, Industry and Research Organizations.
- To contribute to the knowledge base through Scientific enquiry, Applied Research and Innovation.

#### Core Values :

- **Technical competence** : To have the right technical skill set and apply knowledge and skills to perform specific tasks within the organization.
- **Intellectual character** : To develop intellectual traits of mind and personality that can promote successful learning among students.
- **Commitment to Excellence** : To create passion and a strong sense of dedication among students, so that they strive in pursuit of success and eminence.
- **Community Focus** : To join hands with the common fraternity and adhere to its needs by way of sharing opinions and solving problems for its smooth function.

#### Founder :

This Institute, amongst many other institutions, is the realization of the dream of Dr. B. S. Abdur Rahman, a great philanthropist, a reformer and a first generation self-made entrepreneur, who established this institution to educationally uplift the socially-disadvantaged sections in general and Muslims in particular.



### Sponsoring Society :

The sponsoring society, a not for profit one was established to serve for the cause of Education, Knowledge Enhancement and Socio-Economic upliftment of the backward communities of India, particularly the Muslim community, to undertake higher education and research, in advanced areas and to contribute for the overall development and enhancement of human values of society.

### Governance Structure :

- The existing governance structure is discussed in 6.2.2.
- The Institution functions as per the guidelines, decisions and directions of the Board of Management, comprises of eminent academicians, able administrators and former Vice Chancellors of International, Central and State Universities, since its inception.

### Vice Chancellors :

- **Dr. P. Kanniappan**, the first Vice Chancellor from 2009 to 2012, earlier served as the Vice Chancellor of Alagappa University, a State University, Tamil Nadu.
- **Padmashri JAK Tareen**, second Vice Chancellor from 2013 to 2016, was the Vice Chancellor of Pondicherry Central University.
- **TanSri DatoSri Emeritus Professor Dr. Sahol Hamid Bin Abu Bakar**, is the present Vice Chancellor, an acclaimed and successful administrator of UiTM, Malaysia.

### Perspective Plan :

- The Institute prepares perspective plan periodically for strategy formulation, through deliberations with all stakeholders. Copy is furnished.
- Other statutory bodies like, Finance Committee, Planning & Monitoring Board, Academic Council, Board of Studies, Research Advisory Committee & Research Board and IQAC are established as per the guidelines of UGC and meetings are conducted regularly.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

#### 6.1.2 The institution practices decentralization and participative management

#### Answer:

This institute defines and delegates the Academic, Administrative & Financial powers and involves the participation of all the stakeholders in order to achieve the vision & mission.

- The various authorities of the institute viz., Dean (Academic Affairs), Dean (Research), Dean (Student Affairs), COE, School Deans, Head of the Departments, Directors etc., are suitably empowered to bring in positive changes, so as to achieve the target, within the framework.



### **Case study - I (Decentralization):**

Empowerment of course teachers to design the course, choose the appropriate teaching pedagogy, select the correct rubrics for evaluation & award of grades is available.

- In this institute, the course teachers are empowered to frame the syllabus, by considering the latest technological developments and requirements of the industry & the society.
- The same would be deliberated in the department meetings and based on the consensus, the same would be presented in the School Level Advisory Committee and the respective Board of Studies (BoS) for approval.
- Even after the approval of the Academic Council, the individual course teachers are empowered to change the contents of one module, based on the needs, after getting approval from the respective Chairman / BoS.
- The same would be ratified in the subsequent BoS and Academic Council.
- For example, in the course titled "ITBY09 - Wireless Networks", the Module - III has been revised by the course teacher during the delivery, with the approval of Chairman / BoS, Dean (Academic Affairs) & Chairman / Academic Council.

### **Case study - II (Decentralization):**

Financial powers to the staff in-charge of the laboratories.

- The teacher in-charge of the laboratories are empowered and given suitable and appropriate administrative & financial powers to procure a new equipment and maintenance of the same.
- While, the department budget is prepared by the respective Head of the Department, he would consolidate the budget proposals of all the labs and present the same to the budgeting & cost committee and then for finance committee approval.

### **Case study - III (Participative Management) :**

The programmes to be offered in the ensuing academic year would be deliberated in the Meeting of all Head of the Departments, Deans and Directors in the presence of Director (Admissions), Registrar and Vice Chancellor.

- For example, a meeting of all the Head of the Departments, Deans and Directors was convened on 30.08.2019 to discuss & finalize the programmes to be offered for the academic year 2020 - 21.
- In this meeting, the respective school Dean will make a presentation on the prospectus of introducing new programmes, variation in the sanctioned intake for the next academic year.

### **Case study - IV (Participative Management) :**

- All the changes in the Administration of the Research activities would be presented in the meeting of "Research Board" by the Dean (Research), where all the School Deans are present.
- Major policy decisions, amendment in the regulations, award of research incentives are discussed in the Research Board and approved by the Vice Chancellor.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## 6.2 Strategy Development and Deployment

### 6.2.1 Perspective/Strategic plan and Deployment documents are available in the institution

#### Answer:

As this institution is a 35+ year old institute, the perspective / strategic plans and deployment documents are prepared periodically and made available to all the stakeholders in order to achieve the desired targets.

#### Case Study (Participation in the Accreditation & Ranking Processes) :

- It has been envisaged to get programme-wise accreditation to all the programmes offered by this institute, as and when it become eligible.
- As National Board of Accreditation (NBA) is the major agency for programme-wise accreditation, this institute has started practicing "Outcome Based Education" (OBE) since 2014.
- As a result, all the programmes offered by this institute have a well-defined Programme Educational Objectives (PEOs) & Programme Outcomes (POs), including Programme Specific Outcomes (PSOs).
- For all the courses included in the curriculum of a respective programme, Course Educational Objectives (CEOs) & Course Outcomes (COs) have been prepared in consultation with all the stakeholders viz., students, parents, industry, employers, alumni, faculty etc.,
- In order to have a forum for all the stakeholders, a School Level Advisory Committee (SLAC) is constituted and periodical meetings are arranged by the respective Dean of the School.
- Several orientation / awareness programmes on OBE and "Assessment of Attainment of Outcomes" have also been arranged.
- Some programmes have procured a specialist international software for OBE and assessment of attainments (eg : Ioncudos).
- The PEOs and POs are displayed for the notice of students and the same is made available in the Institute website.
- An institute level central committee have critically reviewed the various PEOs, POs & PSOs of the various programmes.
- Having done the initial requirements, this institute have started applying for Accreditation by NBA, in six batches, one after another starting from 2015.
- As per the mandate, the application has been submitted for the six batches in the years 2015, 2016, 2017, 2018 & 2019.
- Accordingly, 20 programmes (10 UG + 10 PG) of this institute have been accredited by NBA under Tier - I format.
- The 10 UG programmes got accredited include :
  1. B. Tech Civil Engineering
  2. B.Tech Computer Science Engineering
  3. B.Tech Electronics & Instrumentation Engineering
  4. B.Tech Information Technology
  5. B.Tech Electronics & Communication Engineering
  6. B. Tech Mechanical Engineering
  7. B.Tech Electrical & Electronics Engineering
  8. B.Tech Polymer Engineering
  9. B.Tech Aeronautical Engineering
  10. B.Tech Automobile Engineering

- The 10 PG programmes got accredited include :
  1. M.Tech Structural Engineering
  2. M.Tech Power System Engineering
  3. M.Tech Computer Science Engineering
  4. M.Tech Construction Engineering & Project Management
  5. M.Tech CAD-CAM
  6. M.Tech Power Electronics and Drives
  7. M.Tech VLSI & Embedded Systems
  8. M.Tech Information Technology
  9. M.Tech Electronics & Instrumentation Engineering.
  10. MBA
- Now, this institute has started applying for re-accreditation (second cycle).
- Accordingly, re-accreditation has been granted for a further period of three years (valid upto 2022) to the following four programmes :
  - B.Tech Computer Science Engineering
  - B.Tech Electronics & Instrumentation Engineering
  - B.Tech Information Technology
  - B.Tech Electronics & Communication Engineering

File Description	Document
Any additional information	<a href="#">View Document</a>
Strategic Plan and deployment documents on the website	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

**6.2.2 Organizational structure of the University including governing body, administrative setup, and functions of various bodies, service rules, procedures, recruitment, promotional policies as well as grievance redressal mechanism**

**Answer:**

A well-defined and established organisational structure is in place, in order to carry out the long term planning, institutional policies and the day-to-day administrative affairs of this institute.

Due representation has been given to all the stakeholders in the appropriate administrative bodies.

**Governing Body :**

- The Board of Management (BoM) is the apex governing body, which sets the vision & mission of the institute.
- The Vice Chancellor is the Chairman of the BoM.
- In general, the BoM approves all the major policies and gives direction for implementation.
- The BoM comprises of the members of the sponsoring society, eminent persons from the industry & academia, faculty members in rotation etc.,
- The recommendations of Planning & Monitoring Board, Finance Committee, Academic Council & other Advisory Boards would be approved by the BoM.

**Planning and Monitoring Board :**

- This is a principal planning body which eventually prepares the strategic plan, perspective plan, short & long term plan for the institute.
- Planning and Monitoring Board is responsible for monitoring the various development programmes of the institute, including academic infrastructure & physical infrastructure.

#### **Finance Committee :**

- The finance committee approves the budget proposal for the ensuing financial year and the expenditure incurred in the previous term.
- The finance committee would carefully scrutinise the proposed income & expenditure, as well as, the revised income & expenditure and accordingly makes appropriate decisions, for the approval from BoM.

#### **Academic Council :**

- The academic council comprises of all the Deans of the school, Head of the Departments, in addition to external eminent persons both from industries & premier academic institutions.
- The regulation, curriculum and syllabus contents of the various programmes offered by this institute shall be scrutinised by the academic council and recommends the same to the BoM for final approval.
- The prospectus of introduction of new programmes would also be discussed in the academic council.

#### **Research Advisory Committee :**

- The committee provides policy guidelines and direction for the growth of research (academic & sponsored) works.

#### **Research Board :**

- The Research Board is an Internal Committee to oversee the academic research activities of the institute.
- Scrutiny and recommendation of the names of faculty members for approval by the Vice Chancellor to act as Supervisors.
- Scrutiny and recommendation of research scholars application after interview by the various committees for final approval by the Vice Chancellor.

#### **Service rules, procedures, recruitment, promotional policies :**

- As per the guidelines of statutory bodies and approval by the BoM, a well-defined and disseminated service rules, procedures, recruitment & promotion policies are in place.
- The same is made available in the institute website for transparency.

#### **Grievance Redressal Mechanism :**

- The various grievance redressal mechanism available in this institute are furnished below :

- Anti-Ragging Cell
- Women empowerment Cell
- Women-Students Grievance Redressal Cell
- Students Counseling Cell
- Sexual Harassment – Complaints Redressal Cell
- Anti-Discrimination Cell
- Gender Sensitization Cell
- Staff Grievance Redressal Cell

File Description	Document
Any additional information	<a href="#">View Document</a>
Link to Organogram of the University webpage	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 6.2.3 Implementation of e-governance in areas of operation

1. *Planning and Development*
2. *Administration*
3. *Finance and Accounts*
4. *Student Admission and Support*
5. *Examination*

**Answer:** All 5 of the above

File Description	Document
Screen shots of user interfaces	<a href="#">View Document</a>
ERP Document	<a href="#">View Document</a>
Details of implementation of e-governance in areas of operation Planning and Development, Administration etc	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 6.2.4 Effectiveness of various bodies/cells/committees is evident through minutes of meetings and implementation of their resolutions

**Answer:**

- The Government of India focuses on entrepreneurship to promote startups and also insist on “Make in India”.
- In line with this vision, it has been decided by the BoM of this institute to take necessary initiations, to establish an "Innovation & Incubation Centre".
- Accordingly, "Crescent Innovation & Incubation Council" (CIIC) has been established as a "Section - 8 not for profit company" and registered under Indian Companies Act 2013. The certificate is furnished.
- CIIC will act as a "One Stop Shop – Technology Business Incubator" (TBI) for start-ups.
- A full-time CEO is appointed, whose previous experience is on similar grounds and from a major industry.
- CIIC facilitates entrepreneurial & innovative ecosystem to all the stakeholders including the students, faculty, industry, investors and society at large.

- CIIC is presently focusing on the disruptive technologies in the domains of Industry 4.0, Mobility Transportation & Life Sciences.
- CIIC has setup 25,000 sq.ft. state-of-art facility for start-ups.
- CIIC also has tie-up with Wadhvani Foundation for providing Social Entrepreneurship Course as a mandatory elective for all final year students.
- A tie-up with University of Missouri, USA for Life sciences Innovation & Entrepreneurship course is also being practiced.
- CIIC is recognized as one of the Incubator in Start-up India Hub and Institutional Innovation Council in Ministry of Human Resource Development (MHRD) Innovation Cell (MIC).
- Recently, CIIC has been recommended for Rs.1.8 Cr BIONEST Incubator grant from Biotech Industry Research Assistance Council (BIRAC), Department of Biotechnology, Govt. of India.
- CIIC also does the job of co-incubation & hand holding for some other institutes' incubation centre.
- Because of systematic planning and effective execution, CIIC in a short period of time is currently incubating more than 25 start-ups.
- The list of incubated companies of this institute include :
  - Wegot Utility Solutions Pvt Ltd
  - Kankyo Cleantech India Pvt Ltd
  - Farmagain Agro Pvt Ltd
  - Rekindle Automations Pvt Ltd
  - Aindra Labs Pvt Ltd
  - Onium Life Sciences Pvt Ltd
  - Agrit Green House Solutions Pvt Ltd
  - Ravikas
  - Greenflora Biosciences Pvt Ltd
  - SCADA Geoinformatics Pvt. Ltd
  - Kardle Industries Pvt Ltd
  - Frutunes Food Products Pvt Ltd
  - Meiyur Education and Skill Development Pvt Ltd
  - Precise 3D Metrology and Design Solutions Pvt Ltd
  - MADIEE Games Pvt Ltd
  - Precilabz Techno Private Ltd
  - Bigphi Technologies Pvt Ltd
  - Jothna Software Solutions Pvt Ltd
  - XSDATA Factory Pvt Ltd
  - Mirrar Innovation Technologies Pvt Ltd
  - Sirpi Software Pvt.Ltd
  - ACRE-Alliance For Critical Regionalism Pvt Ltd
  - Hi fusion Energy
  - Patent Pro
  - Dhanvantri biomedical Pvt ltd
  - Sabari biomedical
- Under the CIIC umberalla, we have following verticals :
  - Crescent Innovation & Incubation Council (CIIC) – Demonstrating Entrepreneurship
  - Entrepreneurship Development Cell (EDC) – Seeding Entrepreneurship
  - Dr. APJ Abdul Kalam Innovation Centre – Nurturing Entrepreneurship
  - IPR – Intellectual Property Rights Cell
  - Centre for Qualitative Research in Human Nature and Organisational Politics
  - Centre for Innovation in Teaching and Learning

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 6.3 Faculty Empowerment Strategies

#### 6.3.1 *The institution has effective welfare measures for teaching and non-teaching staff*

##### Answer:

The various welfare measures implemented in the welfare of the teaching & non-teaching staff would include the following, but not limited to :

- Various categories of leave including Casual Leave, Earned Leave, Medical Leave, Maternity Leave, Un-earned Leave on private affairs, Extra-ordinary Leave, and Study Leave are extended to all the members of staff
- Social security benefits viz., Gratuity, EPF, Group health Insurance etc., are made available to all the employees of this institute
- Interest free festival advance for supporting staff during Pongal, Ramzan, Bakrid, Diwali, Christmas etc.,
- ESI facility for supporting staff members and they can have access to the facilities in the nearby ESI hospitals
- Fee waiver/ fee concession for the wards of employees for the admission to UG/ PG programmes in this institute
- Subsidised tariff for University transport facilities
- Staff quarters (for both teaching & non-teaching)
- Semi-furnished staff quarters
- Rental concession for the staff quarters
- In-house free medical facilities
- 24x7 water supply for the staff quarters
- 24x7 electricity supply (power back up through diesel generators) for the staff quarters
- No maintenance charges for the staff quarters
- Free Wi-Fi internet connection for the staff quarters
- Fee concession for admission to the wards of the employee in the sister institutions
- TA & DA Allowance are provided to the members of faculty, when they visit other Countries, other Cities on Official Duty
- Spacious faculty cabin with sufficient storage space
- Cash incentives to faculty for research publications, patents, funded projects, book-writing etc.,
- Remuneration for consultancy activities
- Additional honorarium for offering training programmes to the employees of industries and other institutions
- Cash award & merit certificate for Best faculty, Best Young faculty research award, excellent teacher, Innovative ideas for teaching, Best School award, Potential School award, Best paper in conference, Effective contribution to the Institute, Lifetime Achievement award etc.,
- Teacher's Day Celebrations
- Exclusive cultural festival for the staff members "Sudhanthiram"
- Exclusive sports events for teaching & non-teaching staff
- Faculty members eligible for study leave for two years to complete Ph.D.
- Faculty members are permitted to avail on-duty to attend Ph.D. level courses at IIT, Anna University, etc.,
- Faculty members are sponsored to attend Conferences of repute, in terms of 100% registration fee, one-way air fare, per diem allowances etc.,
- Desktops / laptops facility at the office cabin
- Faculty rooms are equipped with LAN connection and Wi-Fi.

- Bank and ATM facilities for faculty at close proximity
- Gymnasium facilities at subsidised cost
- Grocery and vegetable store inside the campus
- Celebration of multicultural festivals to promote harmony & team work
- Recreation centres for staff
- Summer and winter vacations for staff members
- Elevator facility in all the buildings of this institute
- User friendly campus for physically handicapped persons (toilet, ramps, wheel chair etc.,
- Canteen facilities

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

**6.3.2 Average percentage of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the last five years**

**Answer:** 42.11

6.3.2.1 Number of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
174	172	129	178	132

File Description	Document
Details of teachers provided with financial support to attend conferences,workshops etc during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**6.3.3 Average number of professional development / administrative training programs organized by the University for teaching and non teaching staff during the last five years**

**Answer:** 42

6.3.3.1 Total number of professional development / administrative training programs organized by the Institution for teaching and non teaching staff year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
29	64	54	37	26

File Description	Document



Reports of the Human Resource Development Centres (UGC ASC or other relevant centres).	<a href="#">View Document</a>
Reports of Academic Staff College or similar centers	<a href="#">View Document</a>
Details of professional development / administrative training programs organized by the University for teaching and non teaching staff	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**6.3.4 Average percentage of teachers attending professional development programs viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Program during the last five years**

**Answer:** 84.9

6.3.4.1 Total number of teachers attending professional development programs, viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Programs year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
366	298	302	323	295

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers).	<a href="#">View Document</a>
IQAC report summary	<a href="#">View Document</a>
Details of teachers attending professional development programs during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**6.3.5 Institution has Performance Appraisal System for teaching and non-teaching staff**

**Answer:**

**Performance appraisal system for teaching staff :**

- The faculty appraisal is conducted as per the UGC Guidelines
- Faculty members are required to submit a "Performance Based Appraisal Form (PBAS)", during January / July, as applicable
- The PBAS comprises of various criteria such as teaching, learning and evaluation strategies, research, extension & consultancy activities.
- Students' feedback on the course teacher as well as on the teaching-learning process is obtained online, twice a semester, which would be a parameter in the performance appraisal.
- 360 degree feedback is an integral component of PBAS
- The performance appraisal application along with the department heads' recommendation is submitted for review by the higher-ups.
- Based on the appraisal, the annual increment, career advancement, etc will be awarded.
- Earlier, the performance appraisal was conducted through an in-house mechanism known as "Performance Appraisal Scoring System (PASS)".
- The major parameters of PASS system are furnished below :

## 1. Academic Activities (100 Marks) :

1.1. *Teaching (40%)*1.2 *Student feedback (20%)*1.3 *Effective utilisation of allotted periods (10%)*1.4 *Performance in academic audit (30%)*

## 2. Research Activities (100 Marks) :

2.1. *Academic research (20%)*2.2 *Sponsored research (40%)*2.3 *Research Publications (20%)*2.4 *Patent (20%)*

## 3. Extension Activities (100 Marks) :

3.1. *Consultancy projects (40%)*3.2 *Testing services (20%)*3.3 *Training programme (20%)*3.4 *Organising seminar / symposium / workshop / short term course / FDP / summer / winter school etc., (20%)*

## 4. Administrative Activities (100 Marks) :

4.1. *Department level (40%)*4.2 *Institution level (20%)*4.3 *National level (20%)*4.4 *International level (20%)*

- The computation of Faculty Performance Index (FPI) is calculated as given below :

Activity	Performance Index	Weightage	Professor	Associate Professor	Assistant Professor
Academics	I1.0	W1.0	0.30	0.45	0.55
Research	I2.0	W2.0	0.30	0.25	0.20
Extension	I3.0	W3.0	0.20	0.15	0.15
Administration	I4.0	W4.0	0.20	0.15	0.10
<b>Total</b>			1.00	1.00	1.00

- The FPI is computed using the following formula in which the weights corresponding to the designation of the teacher should be used :
  - $$\text{FPI} = (W1.0 \times I1.0) + (W2.0 \times I2.0) + (W3.0 \times I3.0) + (W4.0 \times I4.0)$$
- The HoD shall verify all the statements made by the faculty member through the documental evidences and FPI computed.

- The PASS report would be forwarded by the HoD to Director (HR), for scrutiny and getting approval from the Vice Chancellor.

### Performance appraisal system for supporting staff :

- The performance appraisal for the supporting staff includes a confidential report by the reporting officer / HoD / Dean / Director, which would be scrutinized by Director (HR) & Registrar.
- The final approval would be granted by the Vice Chancellor.
- The confidential report essentially includes the following attributes :
  - Willingness to do work
  - Initiation to do work
  - Completing the assignment in the stipulated time
  - Realising the responsibility
  - Number of leaves availed during the period including loss of pay
  - Any complaints
  - Attitude in work place etc.,

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## 6.4 Financial Management and Resource Mobilization

### 6.4.1 Institution conducts internal and external financial audits regularly

#### Answer:

- Yes, the institute periodically conducts internal & external financial audits.
- The Internal Audit of the institute is carried out by Ernst & Young LLP.
- The External Audit is carried out by N .C Rajagopal & Co.
- Both these audit firms are having remarkably excellent services, in the audit work and are very well-known in the market.
- As a part of the internal audit, Ernst & Young LLP review the critical process like Admission, HR & Payroll, Procurement, Fixed Asset Management & Financial Accounting, and Revenue Recognition & Statutory Compliance on yearly basis.
- Some of the critical processes are reviewed as given under :
  - Financial Accounting : Review of accounts payable, accounts receivable, general ledger, cash and bank balances, and financial statements of year end closure.
  - Revenue Recognition : Verification of fees receipts and checking of collection of fees which includes Tuition fee, Transport, Exam fee, Hostel fee and other miscellaneous incomes.
  - Fixed Asset Management : Review of capital expenditure, fixed asset accounting (Capitalization including depreciation) and annual physical stock verification.
  - HR & Payroll : Recruitment process. Payroll processing, training of new recruits, performance appraisal for both teaching and non-teaching staffs & full and final settlements.
  - Procurement : Review of operating expenses, vendor identification and selection process, Purchase order processing, Goods receipt and invoice verification.
  - Admission : Verification of Application process, short listing of candidates, fee fixation, scholarship details and students admission.
  - Statutory Compliance : Review of Provident fund remittances, Employees state insurance remittance, Goods and services tax returns, Health and safety norms and Contract labour rules,

Income tax payments, Personal loan EMI for employees and other applicable acts.

- Internal Audit is to review the process of the financial systems, which are as per norms and if there are any deviations in the current process, they will suggest the institute, the solutions to improve the current systems.
- The internal audit also recommends enhancing the current systems policy with the present leading best practices among the 'educational institutions'.
- The mechanism of conducting statutory audit is to review the overall financial aspects of the institute, to ensure the correctness of the financial statements of the institute and it is in line with the standard accounting policies.
- The External cum statutory audit reviews and vouches the entries like Receipts, Bill payments, Cash entries, Journals etc., of the institute for the said financial year.
- The statutory audit will review in depth, all the incomes and the expenditures of the institute, to ascertain that, they are as per the standard accounting policies.
- The statutory audit will review the financial position of the institute and recommend how to effectively optimize, any further additional liabilities of the institute.
- The financial audit report of the institute is prepared and submitted on time, with the income tax department every year.
- The evidences for the various internal and external financial audits are made available in the institute website.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

**6.4.2 Funds / Grants received from non-government bodies, individuals, Philanthropists during the last five years (not covered in Criterion III) (INR in Lakhs)**

**Answer:** 1173.73

6.4.2.1 Total Grants received from non-government bodies, individuals, philanthropists year-wise during the last five years (INR in Lakhs)

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
201.57	228.80	259	282.50	201.86

File Description	Document
Details of Funds / Grants received from non-government bodies during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Annual statements of accounts	<a href="#">View Document</a>

**6.4.3 Institutional strategies for mobilisation of funds and the optimal utilisation of resources**

**Answer:**

## Mobilization of Funds :

- B. S. Abdur Rahman Crescent Institute of Science & Technology is a private, self-financed institute, where the funds are mobilized essentially through the fee paid by the students.
- The laboratory equipment & infrastructure are, to a certain extent, augmented by the financial grants, received from various funding agencies, for the research projects.
- The other modes of fund mobilization, though they are less in quantum, include tuition fee collected from international students, interest earned over FDs, funds generated through industrial consultancy & training programmes, alumni support etc.,
- Deficit is managed by taking advance from the sponsoring society and also through overdraft facility, to the extend needed.
- The institution has a well-established Finance Committee, which oversees the budget, financial transactions, financial planning etc.,
- While Vice Chancellor is the Chairman of the finance committee, the other members include Pro Vice-Chancellor, a person nominated by the Society/Trust/Company, two nominees of the Board of Management, one of whom is the member of the Board, a representative nominated by UGC from a panel of names selected through a Search Committee.
- Finance Officer will be the Member Secretary.

## Optimal Utilization of Funds :

- The institute has a well-defined mechanism to monitor effective and efficient utilization of available financial resources, for the development of the academic processes and infrastructure development.
- Budget planning and budget reviews are continuous process, which are conducted periodically viz., thrice a year.
- The Institution calls for the budget proposal from the Heads of Departments / Deans of the School before the beginning of a financial year i.e., in the month of February.
- The departments are required to submit the budget, under the heads such as Recurring, Non-Recurring, Seminars, R & D, Hospitality, Maintenance etc.,
- To fix the limits of the total recurring expenditure and the total non-recurring expenditure, based on the income and resources of the institution deemed to be university.
- Consequently, the budget allocation and approval will be done for every Departments / Divisions.
- The approved budget is placed before the Finance committee for the approval from the members. All the major financial decisions are taken by the members of the Finance committee.
- The budget review is held in September by the Budget committee, headed by the Vice Chancellor and after detailed briefing by the Head of the Department, the revised budget is approved by the Vice Chancellor.
- The optimal utilization of the funds from the budget allocated will be reviewed in the month of December for further pruning.
- The finance committee, which is the apex body for the financial approvals, meet at least twice a year to examine the accounts and to scrutinize proposals for expenditure.
- No expenditure other than that provided in the budget earmarked, will be incurred by the institution, without the approval of the Finance Committee.
- Institute adheres to utilization of budget, as approved for academic and administrative expenses by the Board of Management.

File Description	Document
Any additional information	<a href="#">View Document</a>

## 6.5 Internal Quality Assurance System

### 6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

#### Answer:

The institution has a well-organized and active IQAC in place. After the first cycle of NAAC accreditation in the year 2014, IQAC was constituted as per the guidelines of NAAC.

- The IQAC, as a quality enhancement body of this institute, suggested several strategies in the areas of Teaching, Learning, Evaluation, Research, Co-curricular, Extra-curricular activities etc.,

#### Case study I - A Course on "Social Entrepreneurship" :

- In the current scenario of economic slowdown and limited availability of job opportunities, this institute has taken a lead, to introduce a course on "Social Entrepreneurship" to the students of all the UG Engineering Programmes.
- Recently, the tag line of our institute has been changed as "We create Employers; Nurture Leaderpreneurs".
- In order to enhance the efficacy of the course, this institute has joined hands with M/s. Wadhwani Foundation, Bangalore, who are a pioneer in offering the course, thereby creating jobs and changing lives.
- This course is offered as a mandatory course to all the pre-final students of UG engineering programmes.
- The faculty members have been deputed for training the trainer programme by Wadhwani.
- The students are getting mentored both by in-house experts and Wadhwani experts.
- The students are required to submit online assignments in a time bound manner, evaluated by the experts.
- The major topics include drivers and challenges of social entrepreneurship, opportunity, recognition, resource mobilization for social ventures, business models, business plan for the social enterprises, the impact of social entrepreneurship on societies & cases studies.
- An advanced level course is being offered as an elective for the final year students.
- Based on the success of this course, it has been decided to implement the same for the other non-engineering programmes also.

#### Case study II - Introduction of "Industrial Internship" in the curriculum :

- In order to provide the necessary industrial exposure to the students, a mandatory "Industrial Internship" is introduced in the curriculum of all the UG & PG engineering programmes.
- As a pilot project, the credited course on Industrial Internship was introduced in the B.Tech (EEE) curriculum during 2009 the year, this institute become a Deemed to be University.
- After observing the positive impact of this, Internship is made mandatory to all the B.Tech Programmes.
- The modalities of the Internship programme, offered by the Department of EEE are furnished below :
  - Minimum 30 days of Industrial Training, in a single slot, is required.
  - Credit earmarked for this Industrial Internship course is two / one and jointly evaluated by the industry & institute.
  - The students are allowed to undertake the internship either during 3rd or 4th year vacation.
  - The students would be allowed to undertake internship only in reputed industries / research labs / design centres, after obtaining the necessary approval.

- No two students would be allowed to undertake internships in the same industry.
- The evaluation would be based on the report, poster presentation and presentation before the department committee.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### ***6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms***

#### **Answer:**

The IQAC system in this institute is very active and in the pursuit of excellence, it periodically reviews the teaching - learning process, evaluation, assessment of attainment of learning outcomes etc., Based on the experience, the IQAC suggests and advocates newer methodologies and technology based processes for the enhancement of quality.

The two effective review mechanisms of IQAC viz., Class Committee meeting and Academic Audit are presented as two case studies.

#### **Case study I - Review through Class Committee Meetings :**

- The class committee is viewed to be the fundamental and building block of IQAC system in this institute, which regularly conducts the review meetings, a minimum of three meetings per semester.
- An exclusive class committee will be constituted for each and every class of this institute.
- The composition of class committee includes all the course teachers offering courses in the said semester, six student representatives and a senior faculty member who is not offering any course in that semester, will act as chairman.
- The first meeting will be held within two weeks from the date of commencement of classes, in which the nature of continuous assessment for various courses and the weightages for each component of assessment will be decided for the first and second assessment.
- The course teacher has freedom to assign rubrics for evaluation in consultation with the other members of the class committee
- The assessment comprises of different components viz., written tests, mini project, assignments, seminar, case study, field study etc.,
- The second and third meeting will be held within a week after the date of first & second assessment reports, to review the students' performance and for follow up action.
- During these meetings the student representatives, will meaningfully interact, express opinions and suggestions to improve the effectiveness of the teaching-learning process.
- The fourth meeting of the class committee, excluding the student members, will meet within 5 days from the last day of the semester end examination to analyze the performance of the students and decide their grades in each course.
- The class committee would also look into the other aspects of teaching-learning-evaluation process including the infrastructure requirements, suggestion for new teaching pedagogy, course correction leading to attainment of course outcomes etc.,

#### **Case study II - Review through DAAC & EAAC :**



- The Academic Audit system, another important component of IQAC reviews teaching-learning-evaluation process and suggest corrective measures, leading to the attainment of course outcomes & programme outcomes.
- The two tier academic audit system comprises of Department Academic Audit Committee (DAAC) & External Academic Audit Committee (EAAC).
- While DAAC comprises of senior faculty members of the department, EAAC consists of distinguished academicians from other premier institutes like IIT, Anna University etc.,
- The academic audit committees will review the course file, question papers, implementation of Bloom's taxonomy in the evaluation process, answer sheets, usage of various teaching pedagogies, the overall process leading to attainment of course outcomes and hence, the programme outcomes.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 6.5.3 Average number of quality initiatives by IQAC for promoting quality culture per year

**Answer:** 4.4

#### 6.5.3.1 Number of quality initiatives by IQAC for promoting quality year-wise for the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
03	06	04	04	05

File Description	Document
Number of quality initiatives by IQAC per year for promoting quality culture	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
IQAC link	<a href="#">View Document</a>

### 6.5.4 Quality assurance initiatives of the institution include

1. Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback collected, analysed and used for improvements
2. Academic Administrative Audit (AAA) and initiation of follow up action
3. Participation in NIRF
4. ISO Certification
5. NBA or any other quality audit

**Answer:** Any 4 of the above

File Description	Document
e-copies of the accreditations and certifications	<a href="#">View Document</a>
Details of Quality assurance initiatives of the institution	<a href="#">View Document</a>



Any additional information	<a href="#">View Document</a>
Annual reports of University	<a href="#">View Document</a>

### ***6.5.5 Incremental improvements made during the preceding five years (in case of first cycle)***

#### ***Post accreditation quality initiatives (second and subsequent cycles)***

#### **Answer:**

Post-first cycle of accreditation by NAAC, following are some of the major improvements made by this institute, during the last five years.

- Outcome Based Education (OBE) has been introduced in all the programmes offered by this institute.
- A major Enterprise Resource Planning (ERP) tool viz., TCSion is subscribed and being used to leverage the administrative activities.
- A newly constituted IQAC cell has been established in order to monitor the various academic activities.
- A very eminent and international repute Vice Chancellor has been requested to offer his services for this young Deemed to be University.
- Affiliate faculty is drawn from premier National / International Universities and industrial establishments.
- In order to hire good teachers and improve the faculty diversity, a new portfolio is introduced as Director (Human Resources).
- 20 programmes have been accredited by NBA, under Tier - I format leading to the attainment of learning outcomes.
- In order to improve the visibility of institute a new office of Director (Accreditation, Ranking & International Affairs) is put in place.
- Student exchange and student internship programmes are happening to the students of this institute in premier universities like Johns Hopkins University, University of Missouri, Purdue University, UiTM etc.,
- In order to integrate start-up culture & entrepreneurial qualities, a Crescent Innovation & Incubation Centre is established under section - 8 and registered under Indian Companies Act 2013.
- A mandatory course on "Social Entrepreneurship" is introduced in the curriculum of all the engineering programmes, which is supported by M/s. Wadhvani Foundations, Bangalore.
- A new "Centre for Innovative and Teaching Learning" is established with an objective of making "any time learning" by the students, a possibility.
- In collaboration with IIT Bombay, spoken tutorials have been introduced and more than 3500 students have registered for the same.
- An "Instrumentation & Calibration Centre" is developed for the precise functioning of instruments of this institute and to offer consultancy services to the external agencies.
- Credit transfer is given to the students who undertake courses in SWAYAM & NPTEL portals, with prior approval from the respective department.
- Three roof top solar power plants have been successfully installed and commissioned with a capacity of 550 KWp, which is 50% of the sanctioned energy demand of this institute.
- New programmes viz., Integrated Law degree programmes, Masters programme in Architecture, UG programme in Pharmacy, other programmes like B.A., B.Com., BCA, B.Sc (Computer Science) etc., are introduced in the recent years.
- Green initiatives and zero discharge are two major contributions to the society through the institute social responsibility.
- This institute has been selected for the nodal centre for SWAYAM based MOOC courses. Several teachers & students have enrolled and obtained good grades.
- The entire campus is Wi-Fi enabled and the band width of the internet connectivity is enhanced to more than 1 Gbps.
- Remote access to the E-resources of library are made available to all including students, scholars & faculty members.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## 7. Institutional Values and Best Practices

### 7.1 Institutional Values and Social Responsibilities

#### 7.1.1 Number of gender equity promotion programs organized by the institution during the last five years

**Answer:** 75

7.1.1.1 Number of gender equity promotion programs organized by the institution year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
11	18	17	15	14

File Description	Document
Report of the event	<a href="#">View Document</a>
List of gender equity promotion programs organized by the institution	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 7.1.2 Institution shows gender sensitivity in providing facilities such as

##### a) Safety and Security

##### b) Counselling

##### c) Common Room

**Answer:**

Being a minority institution and because of the various gender equity initiatives undertaken by this institute, 45 % of the faculty members and approximately 30 % of the students admitted are women. This is a very positive achievement, endorsed by the public perception.

The facilities provided by this institute in terms of safety, security, counseling, common room etc., are more than adequate and the same is presented below :

#### Safety and Security :

- An exclusive Director, a retired Major General served in the Indian army, has been appointed for the institute's Security & Hostels.
- He is supported by the wardens of Men's & Ladies hostel and Registrar of the Institute.
- The entire campus is covered with electronic surveillance through 244 nos. of CCTV cameras, covering the strategic locations.
- Round the clock security officers are posted and on vigil duty, for the entire campus.

- The members of the Proctor Board keep a watch over the students, to prevent any ill treatment or harassment, especially to girls.
- The ladies hostel is strategically located and surrounded by the staff quarters.
- No vendor / visitor would be allowed to enter the campus, without entry in the register, and issued visitor pass.
- Girls are also sensitized about the safety & security precaution.
- Self defense classes are also being organized on a regular basis
- 24 x 7 ambulance service is available inside the campus.
- A central medical facility and dispensary for girls & boys at their hostels are made available.
- In addition to the Chief warden and Deputy wardens, Resident wardens and hostel managers are made available.
- Separate seating arrangements for boys & girls have been made, for dining in the canteen.
- Students travelling in the college bus have been issued with bus pass. They should produce it on demand by the authorities.
- Security sticker for two wheelers & four wheelers have been issued and the same has to be on displayed.

### Counselling:

- Every student is attached to one faculty advisor, who helps the students in academic, co-curricular and extra-curricular activities and making career choices.
- The faculty advisors also advise the students in choosing the elective courses for registration and enrolment in every semester, as well as, on related personal matters.
- Counseling is conducted periodically to ensure the well-being of the students.
- This institute has a Crescent Professional Counseling Centre, where the confidentiality of the visitors are maintained at the highest order.
- Dr. S. Hameed Kadar Ali is a full-time professional counselor for this institute.
- Students can visit and get the free counseling for any issues, including personal ones.

### Common Room :

- Several common rooms are provided in all the academic blocks, as well as, in the hostels.
- Various facilities including a good ambience & internet connections are provided in the common rooms.
- Frequent visit by the security personnel will ensure the safety of the students utilizing the common room.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 7.1.3 Percentage of annual power requirement of the Institution met by the renewable energy sources

**Answer:** 50.1

#### 7.1.3.1 Annual power requirement met by renewable energy sources (in KWH)

Answer: 1766949

#### 7.1.3.2 Total annual power requirement (in KWH)

Answer: 3526846

File Description	Document
Details of power requirement of the university met by renewable energy sources	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 7.1.4 Percentage of annual lighting power requirements met through LED bulbs

Answer: 81

#### 7.1.4.1 Annual lighting power requirement met through LED bulbs (in KWH)

Answer: 248346

#### 7.1.4.2 Annual lighting power requirement (in KWH)

Answer: 306600

File Description	Document
Details of lighting power requirements met through LED bulbs	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 7.1.5 Waste Management steps including:

- *Solid waste management*
- *Liquid waste management*
- *E-waste management*

**Answer:**

This institute is committed to follow a range of sustainable design features and practices in order to build and maintain, a green campus and to adopt "zero discharge".

#### Solid Waste Management (SWM) :

- It is practiced to convert the waste generated at the campus, by way of segregation as organic waste, recyclable waste, inert waste and converting the same into another usable form
- This Institute has received a certificate of Appreciation from "Green Services Trust" for implementing the SWM project in the campus, in an environment friendly manner and diverted 1,44,655 Kg of waste from landfill to recycling
- Every year this institute contributes waste papers towards national recycling initiative organized by ITC Ltd., (paper boards & specialty paper division) which is equivalent to saving 750 trees on an average
- The collected and segregated waste will be unloaded at the waste processing yard and processed through 15 staff called as 'Green friends'
- The waste generated at the campus will be processing as per SWM Rules 2016

- Bio-degradable waste is composted under windrow composing method
- Recyclable waste is further segregated and disposed through vendors on need basis
- Sanitary napkins waste is safely disposed using an incinerator fitted with wet scrubber for pollution control
- Food waste is fed in the bio-gas plant and is utilized for cooking purpose
- Several SWM training and awareness programs are conducted
- The harvested bio compost of 2000 kg (approx.) is used for gardening

### **Liquid Waste Management :**

- 2 nos. of sewage treatment plants (STP) of 500 KLD capacity are available
- The sewage is characterized by presence of organic, inorganic and suspended solids
- The chain of treatment is aimed to remove such pollutants from the waste water so that it can be effectively reused
- The treatment system consists of preliminary, Primary and Secondary
- The Eco-Bio Bricks helps in the attachment of bacteria in the treatment system and helps in the better removal of organic content from the wastewater
- The STP is maintained regularly
- Treated water is used for landscaping and flushing purposes
- The physical, chemical and biological characteristics of the treated water are tested to ensure the efficiency
- Some of the important parameters checked include pH, solids, Chemical oxygen demand, Biochemical oxygen demand, Nitrates, chlorides etc.,

### **E-Waste Management :**

- E-waste and hazardous waste are handed over to the authorized processors and certificate of destruction is obtained
- All obsolete electrical and electronic wastes are disposed as e-waste to vendors for proper destruction, without damaging the environment and certificates are obtained
- Electronic waste that are disposed includes Old TVs, computer monitors, printers, scanners, keyboards, mouse, , Radio,, Phones, Fax, Photocopy machines, cables, Flip flops, memory chips, motherboard, compact discs, cartridges etc.,
- Ensured that generated e-wastes are not disposed, along with the other solid wastes generated
- GEMS recycling Pvt. Limited, Neervallur Village, Kancheepuram collects all the e-waste
- SOP is in place for handling the e-waste

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

#### **7.1.6 Rain water harvesting structures and utilization in the campus**

#### **Answer:**

Being a proactive and environment conscious organisation, this is one of the pioneers in implementing solutions, to save water, including rain water harvesting.

- The institute has implemented rain water harvesting system in the all the academic blocks and hostels, with a strong desire to utilize the rain water, at maximum extent.
- Rainwater harvesting facility is to collect rainwater from the roof of all buildings.
- The harvested water is diverted to open wells in the institute campus, Men's Hostel and ladies hostel, thereby recharging the ground water in this campus.
- The placement of rainwater harvesting facility, within the campus has been decided by considering the profile of the land, so as to drain the maximum amount of water collected, with ease.
- Necessary and sufficient plumbing connections are provided to trap the rain water from the roof tops.
- The underground connections are connected in such a way that the water is collected from the roof top and the same is drained to the sumps, through the recharge pits, which would be connected to the existing wells of the campus.
- Two numbers of exclusive 10,000 lit capacity each, sumps are made available to collect the rain water.
- The rainwater harvesting structures are constructed as per the statutory norms.
- The recharge pits are provided to collect the rain water through series of filter beds. This will make the collected water more potable.
- Some of the salient features of the recharge pit are described below :
  - A mesh is provided at the inlets of rain water pipes so that solid waste / debris is prevented from entering the pit system.
  - The recharge pits are of size 2m x 2m x 2m is excavated
  - The recharge pit comprises different set of filter media. The filter media comprises of thick layers of boulders at the bottom followed by layers of gravels and coarse sand.
  - This enables the filtration of water and also prevents the deposition of silt on the recharge pit.
  - Access manhole frames and covers are provided.
- The rain water is also stored in underground sumps of Life Science block, Mechanical Science Block and New Staff Quarters.
- The total water consumption in the institute is 0.6 MLD,(i.e) 0.5 MLD is procured through tankers and 0.1 MLD is extracted from open wells in the campus.
- The water requirement is met by treating the rain water stored in sumps using Reverse osmosis systems.
- The yields of these systems are about 45-50%.
- The treated water are tested for particulate contents and based on the results, either the water would be used for domestic purposes or for gardening purposes.
- Some of the salient features of the rain water harvesting system available at this institute, include :
  - Simple construction / assembly
  - Trouble free installation and maintenance
  - Easy to use and operate / manage
  - Compact and handy
  - Operates on minimal gravitational force / pump head

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

#### 7.1.7 Green Practices

- *Students, staff using*
  - a) *Bicycles*
  - b) *Public Transport*
  - c) *Pedestrian friendly roads*
- *Plastic-free campus*
- *Paperless office*
- *Green landscaping with trees and plants*

**Answer:**

Several green practices have been adopted by this institute, as a responsible stakeholder of our ecosystem, include roof top solar power plants, LED bulbs, solar water heaters, plantation of trees both inside the campus and outside the campus, usage of bicycles, battery operated golf cart cars, electric scooters, pedestrian roads, single usage plastic free campus, administration through TCSion ERP tool, thereby reducing the usage of papers, green landscaping, converting solid wastes, liquid wastes & e-wastes into another usable form through appropriate technology, green certification of buildings, five star rated energy efficient electric gadgets etc.,

**BICYCLES :**

- As a step towards complete pollution-free environment in campus, more than 50 bicycles are provided for Men's hostel & more than 20 bicycles for girls, to commute from main gate to the hostels
- Parking facility is provided both at the main gate and also in the hostel
- More than 95% of the day scholars walk from the gate to the academic blocks

**PUBLIC TRANSPORT :**

- This institute is located in the arterial GST Road and is well connected by public transport facilities like suburban train and metro bus
- The nearest railway station is Vandalur and the Vandalur zoo bus terminus is situated just adjacent to this campus
- Most of the day scholars and faculty members use public transport system viz., either metro bus or suburban train for daily commutation

**PEDESTRIAN FRIENDLY ROADS:**

- Roads inside campus are strictly prohibited for use of two-wheelers and four-wheelers except utility vehicles
- The roads are fully used only for pedestrian purpose
- All vehicles should be parked in the respective places allotted by the security and they are not allowed to enter beyond the barricade

**PLASTIC FREE CAMPUS :**

- A policy is in place to convert our campus into a Plastic-free campus
- Within the context of our Green campus policy, it is committed to ban the use of plastics, to reduce the environmental impact
- Usages of plastics are avoided in the canteen
- This institute is a "single usage plastic free campus"

**PAPERLESS OFFICE :**

- The entire university administration is managed through a popular ERP tool viz., TCSion, because of which the usage of papers is reduced
- All the communications to the staff members & students are done through emails, WhatsApp messages, notice in the websites etc.,

- The message to the parents are sent to their mobile phones through SMS
- Biometric attendance system is practiced for the staff members of this institute

## GREEN LANDSCAPING WITH TREES AND PLANTS

- The campus had 909 trees before the cyclone in December 2016
- A total of 341 were trees were uprooted in the recent cyclone. Because of the tree plantation drive, the numbers have gone upto 1240 at present
- Organic Vegetable garden is formed in open land space in Men's Hostel area
- The entire campus is dotted with trees, plants and lawns which are kept well maintained. Green cover is more than 30%

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### ***7.1.8 Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years***

**Answer:** 15.2

7.1.8.1 Total expenditure on green initiatives and waste management excluding salary component year-wise during the last five years(INR in Lakhs)

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
671.15	830.16	341.55	47.05	243.50

File Description	Document
Green audit report	<a href="#">View Document</a>
Details of expenditure on green initiatives and waste management during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### ***7.1.9 Differently abled (Divyangjan) Friendliness Resources available in the institution:***

- 1. Physical facilities***
- 2. Provision for lift***
- 3. Ramp / Rails***
- 4. Braille Software/facilities***
- 5. Rest Rooms***
- 6. Scribes for examination***
- 7. Special skill development for differently abled students***
- 8. Any other similar facility (Specify)***



**Answer:** A. 7 and more of the above

File Description	Document
Resources available in the institution for Divyangjan	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
link to photos and videos of facilities for Divyangjan	<a href="#">View Document</a>

**7.1.10 Number of Specific initiatives to address locational advantages and disadvantages during the last five years**

**Answer:** 24

7.1.10.1 Number of specific initiatives to address locational advantages and disadvantages year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
04	03	07	06	04

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**7.1.11 Number of initiatives taken to engage with and contribute to local community during the last five years (Not addressed elsewhere)**

**Answer:** 13

7.1.11.1 Number of initiatives taken to engage with and contribute to local community year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
05	03	01	01	03

File Description	Document
Report of the event	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**7.1.12**

**Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal / Officials and support staff**

**Answer:** Yes

File Description	Document
Any additional information	<a href="#">View Document</a>
URL to Handbook on code of conduct for students and teachers , manuals and brochures on human values and professional ethics	<a href="#">View Document</a>

**7.1.13 Display of core values in the institution and on its website**

**Answer:** Yes

File Description	Document
Any additional information	<a href="#">View Document</a>
Provide URL of website that displays core values	<a href="#">View Document</a>

**7.1.14 The institution plans and organizes appropriate activities to increase consciousness about national identities and symbols; Fundamental Duties and Rights of Indian citizens and other constitutional obligations**

**Answer:** Yes

File Description	Document
Details of activities organized to increase consciousness about national identities and symbols	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**7.1.15 The institution offers a course on Human Values and professional ethics**

**Answer:** Yes

File Description	Document
Any additional information	<a href="#">View Document</a>
Provide link to Courses on Human Values and professional ethics on Institutional website	<a href="#">View Document</a>

**7.1.16 The institution functioning is as per professional code of prescribed / suggested by statutory bodies / regulatory authorities for different professions**

**Answer:** Yes

File Description	Document
Any additional information	<a href="#">View Document</a>
Provide URL of supporting documents to prove institution functions as per professional code	<a href="#">View Document</a>

**7.1.17 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties during the last five years**

**Answer:** 61

7.1.17.1 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties year-wise during the last five years

Answer:

2018-19	2017-18	2016-17	2015-16	2014-15
13	15	12	12	09

File Description	Document
List of activities conducted for promotion of universal values	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### ***7.1.18 Institution organizes national festivals and birth / death anniversaries of the great Indian personalities***

Answer:

It has been a regular practice of this institute to celebrate our National festivals and the birth & death anniversaries of the great Indian personalities in a befitting manner, as the same would have positive influence, on the next generation of our country.

- The Independence Day & Republic Day celebrations are conducted in the traditional way, in which, either the Vice Chancellor or a senior faculty member will hoist the national flag. The same will be attended by students, supporting staffs, scholars & faculty members and guest performances of the students, highlighting the history of our country would be arranged. Several social awareness programmes like tree plantation, save the environment, make a pollution free campus etc., are organised.
- The festivals like Ramzan, Bakrid etc., have been organised involving all the stakeholders of this institute. A number of Iftar parties are hosted, through which the principles of brotherhood, secularism, respecting women etc., are propagated. Helping the needy people through Zakhat and Qurbani are some of the ideals of celebration of these national festivals.
- The popular festivals of our country including Diwali, Pongal, Holi, Onam, Ugadi, Navarathiri / Dussehra, Ganesh Chaturthi, Raksha Bhandan etc., are celebrated in true spirit and with a participation of good number of students and staff members. They exchange greetings & sweets. Our NSS volunteers distribute new clothes, sweets etc., to the underprivileged children and others.
- Christmas and Easter celebrations are also arranged, in which the cakes and greetings are shared among the students and staff members.
- Another national festival viz., Gandhi Jayanthi is celebrated, highlighting the Gandhian thoughts of "Ahimsa, Satyagraha, Peace, Secularism" etc.,
- The Engineers Day is celebrated on 15th September of every year, as a tribute to Bharat Ratna Mokshagundam Visvesvaraya. In one such celebration, the theme of a seminar arranged was "Role of Engineers in a developing India". In another year, an invited lecture on "Modern Construction Materials" by Mr. V. Ramanathan, Deputy General Manager, Dalmia Cements, Chennai was organized as part of Engineers Day celebration.
- APJ Abdul Kalam Innovation centre was established in our Institute on 15th October 2015, to commemorate the birthday of our founder, Alhaj B. S. Abdur Rahman and our former president, Dr. A.P.J. Abdul Kalam to cater to the innovative ideas of the students, scholars and faculty members of our Institution.
- The faculty training academy of this institute arranges for a grand celebration of Teacher's Day. During the occasion, the Vice Chancellor will present awards and merit certificates to the teachers, whose contribution is acknowledged. The institute will also host a lunch / dinner to appreciate the services of the teachers.

- The event on New India Pledge was organized on 9th August, in which, a copy of the 'New India Pledge' was circulated to all faculty members. The faculty members handling classes around 09.30 a.m on the same day, facilitated the pledge taking by the students. Other officials and staff members also participated in the New India pledge.

### ***7.1.19 The institution maintains complete transparency in its financial, academic, administrative and auxiliary functions***

#### **Answer:**

As this institute is a firm believer of "bottom-up approach" for a sustainable growth, a total & complete transparency becomes an essential ingredient. Hence, transparency is practiced in financial, academic, administrative & auxiliary functions of this institute.

#### **Financial Transparency :**

- The annual audited statements are presented in the meeting of finance committee and made available in the website of this institute
- The fee structure of all the programmes offered by this institute, Hostel & Mess fee, transport fee etc., are made known to all the stakeholders in advance and a copy of the same is uploaded in the institute website
- Periodical internal audits & external audits by eminent audit firms is a regular practice of this institute
- The institute budget for the next financial year is compiled, by collecting the proposals from the heads of various department / divisions / schools, in turn, they collect the same, from the individual unit / lab heads respectively

#### **Academic transparency :**

- The academic regulations of all the programmes offered by this institute are made known to the students and their parents, during the induction training programme itself, before the commencement of the regular classes. All the academic regulations, which are in practice, are made available in the institute website
- The programme curriculum and course contents are uploaded in the institute website and ensured that the same is practiced, without any deviations
- As the course teachers are empowered to choose the teaching pedagogy, assessment tools & rubrics for evaluation and the same is disseminated, during the meeting of first class committee and also in the first 1 or 2 lecture hours
- The general rules and regulations, academic schedule, academic calendar are also provided in the institute website for complete transparency
- The examination calendar & schedule are periodically informed to the students through notifications and circulars

- The attendance of the students are entered in TCSion portal and same can be viewed and monitored by the parents, teachers & students
- The scores secured in the continuous assessment examinations (CAT - I & CAT - II) and semester end examinations are made known to the students and a suitable grievance redressal mechanism is also available
- The examination results are published in online

### **Administrative & Auxiliary functions transparency :**

- The Vision, Mission & Core Values of this institute are disseminated to all the stakeholders through various modes, including display at various vantage points, notice boards, calendars, regulation books, brochures, institute website etc.,
- The service rules, leave rules, responsibilities of the teaching & supporting staff members are made available in the institute website
- If there is any amendment, the same will be notified through circulars and email communications
- The recruitment policies are in line with the UGC guidelines
- Vacancy positions are advertised in leading newspapers, social media & in the institute website
- All the decisions & proposals are disseminated to the stakeholders through notices and circulars via., group email communications

## **7.2 Best Practices**

### **7.2.1 Describe at least two institutional best practices (as per NAAC Format)**

**Answer:**

#### **BEST PRACTICE - 1**

##### **(1) Title of the Practice :**

#### **Research Incentive Scheme for the Members of the Faculty**

##### **(2) Objectives of the Practice :**

This Scheme covers all faculty members of this Institute.

Objectives of the Scheme envisage, in particular :

- to motivate faculty members to concentrate on research, to publish articles in indexed journals with impact factor
- to write books, monographs for publication by reputed publishers
- to establish collaborative research projects with reputed foreign Institutions
- to submit proposals and secure funded research projects from various funding agencies in India and Abroad
- to undertake consultancy projects sponsored by Government, Private, Industrial and other organizations
- to encourage creativity, so that they make original contributions for patents, products, concepts etc.,

**(3) The Context :**

- This institute was essentially a teaching institute, during the first 25 years of its existence (as an affiliated Engineering college)
- Once it started functioning as a "Deemed to be University", one of the major objectives set was to become a "Research Intensive University"
- Accordingly, several new measures have been initiated in order to promote the various dimensions of research activities
- One such initiative is "incentivize the faculty members" through cash awards & certificates
- In addition, it is also made clear to the members of faculty that, the output of research contribution need not led to publication alone. Hence, the various other possible outcomes of research work including obtaining research grants, publication of books, book chapters, research monographs, collaborative research project with a foreign university, grant of patents & industrial consultancy.
- Thus, a cash award, as high as, Rs. 30, 000/- per credit is earmarked

**(4) The Practice :**

In order to maintain the transparency, a detailed scheme is prepared and disseminated to all the faculty members.

**4.1. The Scheme :**

- The Calendar year is the period for calculating the credits
- For each credit earned, a sum of Rs.30,000/- will be awarded. For fractional credits, the amount of Rs.30,000/- will be proportionately awarded.
- If more than one faculty member is involved, the amount will be shared by them
- The appropriate claim form has to be submitted, countersigned by the HOD and Dean of the school

**4.1.1 Research Publication :**

- The publications will be considered only if they are indexed in Web of Science or in Scopus.
  - If SNIP < 1.00 - 0.50 credit
  - If SNIP > 1.00 < 2.00 - 0.75 credit
  - If SNIP above 2.00 - 1.00 credit
- Credit points will be shared by all the authors equally

**4.1.2 Publication of Book :**

Details	Published By	Credits eligible
(i) Full book	International Publisher	2.00
(ii) Full book	National publisher with ISBN/ ISSN Number	1.50
(iii) Edited Volume of book with articles or chapters	International Publisher	2.00

book with articles

or chapters

#### 4.1.3 Collaborative Research Project with Foreign University/ Agency :

- For a Collaborative research project with tangible outcome : 2 credits
- The tangible outcome shall be endorsed by the Research Board
- Credits will be shared among the participating faculty members

#### 4.1.4 Generation of Research Grants:

- The number of credit earned (details furnished in the annexure) will be linked to the total amount of research grant sanctioned by the sponsoring agency.
- Since the amount being released in phases, the incentive(s) paid is also proportional to the amount received by the Institution.
- Credit points for the year under consideration = (amount received in the year/ Total amount sanctioned) x (credits for the total amount sanctioned)

#### 4.1.5 Patents Obtained :

- Faculty members obtaining patents for their original contribution from International and National agencies are eligible
  - International agencies : 5.0 per patent
  - National agency : 3.0 per patent

#### 4.1.6 Undertaking Consultancy Projects :

- No resources of the Institution utilised : 70% to staff & 30% to Institute
- If resources of the Institution utilised : 60% to staff & 40% to Institute
- The resources of the institution include all laboratory facilities, computing facilities, drafting and others

### (5) Evidence of Success :

- The quantum of research output in terms of publications, funded projects, consultancy, patents etc., as well as, the number of faculty members pursuing quality research are on the increase

Sl.No.	Year of Award	No, of Faculty Members	Total Amount in Rs.
1.	2009-10	14	1,73,445
2.	2010-11	19	2,22,086
3.	2011-12	31	3,83,875
4.	2012- 13	56	7,33,280

5.	2013- 14	59	5,61,063
6.	2014- 15	63	6,27,300
7.	2015- 16	67	8,35,049

- The Scopus h-index of this Institution is currently 47, which has increased from 11 in the year 2008.
- The average citation index is 5.667
- Total number of publications (as on 23-Sep-19) is 4,986
- Total publications for 2019 is 275
- Average Impact Factor is 1.805
- All these research outcomes indicate that, motivation of faculty members to pursue quality research, through cash awards / incentives & certificates, have yielded positive results both to the institute and to the faculty members
- In fact, when the scheme was introduced, the incentive award per credit was Rs. 15, 000/-. Starting from the year 2017, the incentive amount has been revised to RS. 30,000/- per credit

#### **(6) Problems Encountered and Resources Required :**

- When more than one faculty member is involved in a research activity and the same has been applied for research incentives, equal sharing of credits among them may not be acceptable to everyone
- Some members wanted to allocate more than 50% credit to the first author / principal investigator
- In the case of funded projects, the total grant may not be released in the same financial year, as the tenure of the research project may extend to more than one year
- The interpretation of "tangible outcome" with respect to a collaborative research project with a foreign university by the research board may not be acceptable to everyone
- As the money realized through research incentive scheme is on the increase, a separate budget provision is required
- As this institute is a self-financing one, additional budget allocation for the procurement of high end research equipment is required, though R & D budget allocation for each & every department of this institute is available
- The State & Central governments can extend financial support to such of those private institutions, who perform quality research and who have got valid accreditation. The same can be monitored also.

### **BEST PRACTICE – 2**

#### **(1) Title of the Practice :**

#### **Project Based Learning**

(a novel teaching pedagogy, in order to enhance the attainment of Learning Outcomes)

#### **(2) Objectives of the Practice :**

The major purpose of teaching-learning process is to attain almost 100% of the Learning Outcomes. In order to achieve the same, the course teacher would practice several teaching pedagogies and evaluate the attainment through various modes of assessment. One such pedagogy is "Project Based Learning (PBL)".

The major objectives of PBL include :



- To ensure the maximum attainment of learning outcomes
- To make the students to do "hands on", related to the topic of discussion
- To experience failures and to find out the ways to overcome the same
- To guarantee fairness in the assessment process

### **(3) The Context :**

- Once this institute started practising "Outcome Based Education", one of the major challenges was to identify an "effective teaching pedagogy" and a "fair assessment procedure"
- Accordingly, several teaching pedagogies including conventional black board teaching, smart classroom, PBL, self-learning, peer-assisted learning & flipped classroom have been discussed
- In addition, the challenge of fair evaluation is doubled, as the higher order thinking skills of Bloom's Taxonomy need to be tested
- Under these conditions, a pedagogy which involves a clear cut understanding, appreciation of the knowledge, application of the skill, effective usage of the concept, facing the failures etc., becomes need of the hour
- The rubrics for evaluation also need to be furnished, before assigning the task
- With this background, it has been decided to execute PBL, in atleast one/two courses per semester, as it requires certain amount of skills & experience on the course teacher

### **(4) The Practice :**

- Though various categories of assessment like test, seminar, assignment, quiz, case study etc., are available for the course teacher, "Project Based Learning" would be one of the best choices for evaluation, especially, when the highest order of the Bloom's Taxonomy viz., Design & Innovate are integral components of the evaluation system
- Thus, it is recommended to practice PBL for at least one or two courses per semester per programme
- The course teacher who is supposed to choose PBL as the teaching pedagogy, will have to do preliminary home works and to identify the various applications and problems, which can be thrown to the students
- The course teacher, during the delivery of the course would make a strong emphasis on the theoretical background and he would also demonstrate the probable applications
- Once the problem is defined, the students either as a team or as an individual, can choose a project / application for demonstrating the theoretical knowledge acquired, through the classroom discussion
- As the project involves various skill sets, failures are bound to occur and hence, a failed attempt should not be judged as negative
- Therefore, the various rubrics for evaluation would be informed to the students, during the first meeting of the class committee
- For example, a course on "Soil Mechanics" can be taught through PBL. The course teacher would highlight the significance of the "bearing capacity" of different soils and hence, before constructing any building, soil tests become essential. For this course, the different groups of students can be asked to collect various types of soil samples, conduct the required test and prepare a report accordingly. These reports would be submitted to the course teacher for evaluation. Based on the agreed rubrics for evaluation, the marks would be awarded
- Similarly, the course teachers who choose "PBL" as the teaching pedagogy, would make the different groups of students to design, fabricate and develop either a model or otherwise
- Some of the constraints in executing the PBL pedagogy include the financial support for carrying out the project, allocation of time to work in a group, as several students pursue the degree programme in the day scholar mode etc., in this institute
- However, the experience of the students and the course teachers with respect to PBL pedagogy happens to be highly convincing and hence, it leads to better attainment of learning outcomes

**(5) Evidence of Success :**

- The attainment of course outcomes, taught through PBL is high, compared to other courses
- For example, a core course on "EEB3101 Digital Systems and Integrated Circuits", was offered through PBL, for B.Tech(EEE) in the V semester of study, during July - Dec 2018
- The pass percentage and attainment of learning outcomes during 2018 was higher (89%), compared to the previous years (74% in 2017 & 71% in 2016), as well as, compared to other courses (77% for Power System Analysis, 79% for Microprocessor & Microcontroller, 86% for Measurements & Instrumentation), offered in the same semester without PBL
- In addition, these students have chosen the concepts of the course, as a supporting tool for carrying out their mini and major project for B.Tech(EEE) curriculum
- In another example, for the course on "EEC391 Microprocessor and Microcontrollers", one batch of students taken the problem statement of "Designing a Robotic Arm" to draw simple geometric figures. They built a robotic arm, consisting of PVC pipes and circuitry including servo motor & its control. This batch continued same work, as their major project work, in which, they fabricated 3D printed arm and sophisticated servo motor circuitry, leading to better product

**(6) Problems Encountered and Resources Required :**

- Some of the major problems encountered in executing the PBL pedagogy include the financial support for carrying out the project, allocation of time to work in a group, as several students pursue the degree programme in the day scholar mode etc., in this institute
- Some students may find difficulty in getting the lab slots, during the office hours, for their PBL projects
- A total residential campus may help the institute in accomplishing these kind of task with ease
- Some students would like to explore the industry assistance for the PBL, but, mostly landed in difficulties
- Many a times, the students are motivated to work in a team and it might be difficult for the course teacher to assess actual performance of individual students

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

**7.3 Institutional Distinctiveness****7.3.1 Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust****Answer:****"Research Intensive University".**

After becoming Deemed to be University (under section 3 of the UGC act, 1956), one of the priorities of this institute is to excel in research and the vision for the future is to become a **"Research Intensive University"**.

Hence, the vision statement of this institute is rephrased in such a manner that this institute aspires to be a leader in research.

In addition, a separate Vision & Mission statements are laid down for the office of Research and an exclusive Dean (Research) and a team of other officers for research administration are nominated.

## **VISION & MISSION OF THE RESEARCH DIVISION OF THIS INSTITUTE**

### **VISION**

B. S. Abdur Rahman Crescent Institute of Science and Technology strives to be a **“Research Intensive Institute”** through various quality enhancement and sustainable initiatives

### **MISSION**

- To offer Ph.D programme in all the Departments of this Institute
- To offer Research Fellowships (JRF & SRF) in all the departments to lure young talents
- To conduct periodical Review Meetings for research scholars to ensure quality
- To disseminate the research findings through publications, patents, consultancy etc.,
- To introduce innovative schemes to encourage quality research and to increase number of research publications
- To introduce a conducive ambience, so as to bring in a research culture in this institute

In order to enhance the quality of research work and the research output, several measures have been initiated, after becoming Deemed to be University.

- A research advisory committee comprising of external experts and a research board comprising of the Deans of all the Schools are constituted.
- All the research initiatives are presented in the research board and the Vice Chancellor's approval is obtained.
- Strict adherence to the UGC regulations of minimum standards & procedures for the award of Ph.D degree
- Research supervisors full time faculty members
- Code of ethics for research
- Evaluation of Ph.D thesis by a foreign & an Indian examiner
- No tolerance for plagiarism
- Exclusive Budget Allocation for R&D to all Departments & Research Centres
- Purchase of Equipment & Software for Laboratories & Research
- Travel Grants to present research findings in International / National Conferences
- Research Fellowships (JRF / SRF)
- Digital Library
- Turnitin – Anti Plagiarism check software
- Research Incentive Schemes
- Library works 350 days / year
- Member in National Knowledge Network (NKN) & AICTE – INDEST Consortium
- Tie up with INFLIBNET, MALIBNET, British Council, AIRC, SERC, IIT, Anna University Libraries
- Internet facilities (both wired & Wi-fi connection)

The code of ethics for research include check for plagiarism, usage of experimental data, ownership & access to data, criteria for authorship, order of authors, self-citations, avoiding duplicate publication, conflict of interest, copyright criterion, obligation to report (reporting suspected misconduct & correction of errors), responsibilities of a research investigator and responsibilities to funding agencies.

In order to incentivize the faculty members and to promote quality research, an innovative “Research Incentive Scheme” is introduced, in which, the research contribution of every faculty member is assessed, considering the Research Publications, Publication of Book, Collaborative Research Project with Foreign University, Generation of Research Grants & Patents. It will enable the faculty members to receive a cash award at the rate of Rs. 30,000/- for every credit earned. The details of the scheme is already presented elsewhere in this report.

The performance of this institute with respect to the research activities is presented below as a case of evidence :

### **Research Output :**

- Scopus h-index of this Institution : 47 (11 in the year 2008)
- Average citation index : 5.67
- Total number of publications : 5,743
- Number of Publications during 1984-2008 : 1,058
- Average Impact Factor : 1.739
- Total number of Citations : 11,205
- No. of Papers with more than 10 SCOPUS citations : 267
- Research paper with highest SCOPUS citations : 233
- Highest impact factor of the journal : 9.74
- No. of Ph.D degree awarded : 87
- No. of sponsored projects (govt. agencies only) : 80
- Grants received through sponsored projects : Rs.957.75 Lakh
- No. of patents (filed & published) : 09
- No. of start-ups incubated : 18
- Revenue generated through consultancy : Rs. 248.23 Lakh
- Revenue generated through training programmes : Rs. 243.50 Lakh
- Books / Monographs / Book Chapter Published : 50 / year

The majority of the sponsored research projects have been successfully carieed out for the government agencies viz., DST, DBT, DRDO,DAE, CSIR, MoES, AICTE, UGC etc.,

A yet another research output of this institute is the establishment of "Crescent Innovation & Incubation Council (CIIC)", under "Section - 8, not for profit company" and registered under Indian Companies Act 2013. CIIC is acting as "One Stop Shop – Technology Business Incubator" (TBI) for start-ups of this institute. CIIC facilitates entrepreneurial & innovative ecosystem to all the stakeholders including the students, faculty, industry, investors and society at large. It is presently focusing on the disruptive technologies in the domains of Industry 4.0, Mobility Transportation & Life Sciences. CIIC has setup 25,000 sq.ft. state-of-art facility for start-ups. Recently, CIIC has been recommended for Rs.1.8 Cr BIONEST Incubator grant from Biotech Industry Research Assistance Council (BIRAC), Department of Biotechnology, Govt. of India. Because of systematic planning and effective execution, CIIC in a short period of time is currently incubating more than 25 start-ups.

To further enhance the research output, future plans are also envisaged and some of them are furnished below :

- To attract International Scholars to pursue quality research at this institute
- To offer Post Doctoral Programme in all the departments
- To achieve an h-Index of 100 in the next 10 years
- To become an institute of reputation with all faculty members having Ph.D. Qualification soon
- To initiate more Collaborative Research Work with premier universities both in India and abroad
- To create more centres of excellence for advance research studies

Thus to make this institute into a Research Intensive one

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## Extended Profile

### Program

*Number of programs offered year-wise for last five years*

**Answer:**

2018-19	2017-18	2016-17	2015-16	2014-15
40	38	31	30	30

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

*Number of departments offering academic programmes*

**Answer:** 21

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

### Students

*Number of students year-wise during the last five years*

**Answer:**

2018-19	2017-18	2016-17	2015-16	2014-15
6186	5348	4414	4469	4670

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

***Number of outgoing / final year students year-wise during the last five years***

**Answer:**

2018-19	2017-18	2016-17	2015-16	2014-15
1376	1262	1053	1405	1365

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

***Number of students appeared in the examination conducted by the Institution, year-wise during the last five years***

**Answer:**

2018-19	2017-18	2016-17	2015-16	2014-15
6051	5315	4369	4434	4608

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

***Number of revaluation applications year-wise during the last 5 years***

**Answer:**

2018-19	2017-18	2016-17	2015-16	2014-15
219	207	252	243	188

**Teachers**

***Number of courses in all programs year-wise during the last five years***

**Answer:**

2018-19	2017-18	2016-17	2015-16	2014-15
2120	2091	1600	1487	1482

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

***Number of full time teachers year-wise during the last five years***

**Answer:**

2018-19	2017-18	2016-17	2015-16	2014-15
417	366	362	360	359

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

***Number of sanctioned posts year-wise during the last five years*****Answer:**

2018-19	2017-18	2016-17	2015-16	2014-15
417	366	362	360	359

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

**Institution*****Number of eligible applications received for admissions to all the programs year-wise during the last five years*****Answer:**

2018-19	2017-18	2016-17	2015-16	2014-15
14988	18713	17568	13338	15070

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

***Number of seats earmarked for reserved category as per GOI/State Govt rule year-wise during the last five years*****Answer:**

2018-19	2017-18	2016-17	2015-16	2014-15
2124	2022	1491	1429	1433

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

***Total number of classrooms and seminar halls*****Answer:** 203***Total number of computers in the campus for academic purpose*****Answer:** 3262

**Total Expenditure excluding salary year-wise during the last five years ( INR in Lakhs)****Answer:**

2018-19	2017-18	2016-17	2015-16	2014-15
3470.63	2658.15	2218.65	2312.63	3047.52

**Conclusion****Additional Information :**

- MHRD, GOI awarded "All India 5th Rank" under Swachh Campus Ranking 2019 of Higher Educational Institutions
- MHRD, GOI issued "Certificate of Appreciation" under (i) Clean & Smart Campus Awards 2019 (ii) One Student - One Tree scheme
- One of our faculty members have been awarded the Thomson Reuters India citation award for Research Excellence and high citations for his research articles during his service at Crescent.
- While one former Vice-Chancellor of this Institute was an awardee of "Padma Shri" , another former Vice-Chancellor was awarded Honorary Doctorate of science from University of Sussex, UK and Engineer's Honorary Doctorate "Dr.-Ing. E. h.", University of Stuttgart, Germany
- Crescent students team have successfully made the Balloon launch of CRESCENTSAT, a Reusable pico satellite
- A team of faculty members have successfully deposited 66 gene sequence data and the same is published by NCBI Genbank, USA. Some of them are furnished below :
  - MN736520.1: *S. Hemalatha., Soundhararajan, R. and Nachimuthu, S. Lasiodiplodia theobromae isolate SH-EF1 internal transcribed spacer 1, partial sequence; 5.8S ribosomal RNA gene and internal transcribed spacer 2, complete sequence; and large subunit ribosomal RNA gene, partial sequence, 535 bp* <https://www.ncbi.nlm.nih.gov/nuccore/MN736520.1>
  - MN736523.1: *S. Hemalatha., Soundhararajan, R. and Nachimuthu, S. Pestalotiopsis microspora isolate SH-EF2 internal transcribed spacer 1, partial sequence; 5.8S ribosomal RNA gene and internal transcribed spacer 2, complete sequence; and large subunit ribosomal RNA gene, partial sequence, 494 bp* <https://www.ncbi.nlm.nih.gov/nuccore/MN736523.1>
- Data Quest ranked this institute in the Engineering institution category at AIR 7 in 2018 and AIR 3 in 2019
- Forbes India has chosen this institute as one of the "Great Indian Institutes" in 2018.
- QS Stars have awarded maximum "5-Star Rating" to four parameters namely Teaching, Employability, Facilities & Inclusiveness and an Overall "4-Star Rating" to this institute.

**Concluding Remarks:**

- B.S. Abdur Rahman Crescent Institute of Science & Technology with all the above mentioned dimensions, aspire to be a "Globally Recognized Institute" in terms of quality education and sustainable development.
- Through several measures and feedbacks, the interests of the stakeholders are well taken care of.
- A positive outcome in the second cycle of Accreditation by NAAC, would certainly enhance the commitment and long journey of this institute in serving the society in large and our country in particular.

**EXCLUDED METRICS**



## List of Excluded Metrics

### 2 Teaching-learning and Evaluation : Weightage ( 200 )

#### 2.1 Student Enrollment and Profile : Weightage ( 10 )

Ref No	Details of Metric	weightage	Metric Performance
2.1.1	Average percentage of students from other States and Countries during the last five years ( Metric Type : <b>Derived</b> , Question Type : <b>QN</b> , Evaluation : <b>3</b> , Nature : <b>Value</b> )	3	8.7

#### 2.2 Catering to Student Diversity : Weightage ( 20 )

Ref No	Details of Metric	weightage	Metric Performance
2.2.3	Percentage of differently abled students (Divyangjan) on rolls ( Metric Type : <b>Derived</b> , Question Type : <b>QN</b> , Evaluation : <b>By DVV</b> , Nature : <b>Value</b> )	5	0

### 3 Research, Innovations and Extension : Weightage ( 250 )

#### 3.4 Research Publications and Awards : Weightage ( 100 )

Ref No	Details of Metric	weightage	Metric Performance
3.4.4	Number of Ph.D.s awarded per teacher during the last five years ( Metric Type : <b>Derived</b> , Question Type : <b>QN</b> , Evaluation : <b>By DVV</b> , Nature : <b>Value</b> )	19	1.01

### 4 Infrastructure and Learning Resources : Weightage ( 100 )

#### 4.2 Library as a Learning Resource : Weightage ( 20 )

Ref No	Details of Metric	weightage	Metric Performance
4.2.4	Average annual expenditure for purchase of books and journals during the last five years (INR in Lakhs) ( Metric Type : <b>Derived</b> , Question Type : <b>QN</b> , Evaluation : <b>By DVV</b> , Nature : <b>Value</b> )	5	15.86

## 5 Student Support and Progression : Weightage ( 108 )

### 5.2 Student Progression : Weightage ( 40 )

Ref No	Details of Metric	weightage	Metric Performance
5.2.2	Percentage of student progression to higher education (previous graduating batch) ( Metric Type : <b>Derived</b> , Question Type : <b>QN</b> , Evaluation : <b>By DVV</b> , Nature : <b>Value</b> )	15	7.12

## ANNEXURE

### 1. Metrics Level Deviations

Metric ID Sub Questions and Answers before and after DVV Verification

Percentage of new Courses introduced out of the total number of courses across all Programs offered during last five years

1.2.1.1. How many new courses are introduced within the last five years

Answer before DVV Verification : 1713

Answer after DVV Verification: 1539

1.2.1

1.2.1.2. Number of courses offered by the institution across all programs during the last five years

Answer before DVV Verification : 2791

Answer after DVV Verification: 2791

Remark : DVV has not considered Seminars ,Projects, Industrial Internship,Summer Internship, Audit Internship etc.

Number of value-added courses imparting transferable and life skills offered during the last five years

1.3.2

1.3.2.1. Number of value-added courses are added within the last five years

Answer before DVV Verification : 212

Answer after DVV Verification: 223

Remark : DVV has not considered those courses are offered by other institution.

1.3.3

Average percentage of students enrolled in the courses under 1.3.2 above

1.3.3.1. Number of students enrolled in value-added courses imparting transferable and life skills offered year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
3642	3044	2341	2125	1986

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
3608	3017	2311	2125	1986

Remark : DVV has not considered students participating in value added course by Mongodh university.

Average percentage of seats filled against seats reserved for various categories as per applicable reservation policy during the last five years

2.1.3.1. Number of actual students admitted from the reserved categories year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
2163	2036	1420	1197	1386

2.1.3

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
1922	1773	1247	1024	1170

Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc.

2.3.2.1. Number of teachers using ICT

Answer before DVV Verification : 417

Answer after DVV Verification: 416

Remark : DVV has reduce the input because HEI has not provide relevant document which specify how many teachers using ICT.

2.4.4. Percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the last five years

2.4.4.1. Number of full time teachers receiving awards from state /national /international level from Government recognised bodies year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
28	36	41	26	18

Answer After DVV Verification :

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2018-19	2017-18	2016-17	2015-16	2014-15
05	05	05	02	01

Remark : DVV has not considered participation letter and award certificate on the letterhead of own institution for 2014-15 provided by HEI. DVV has not considered letter of membership and education certificate.

Average percentage of full time teachers from other States against sanctioned posts during the last five years

2.4.5.1. Number of full time teachers from other states year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
126	86	66	62	64

2.4.5

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
121	84	64	58	60

Remark : DVV has not considered degree certificate as domicile certificate provided by HEI.

Average number of days from the date of last semester-end/ year- end examination till the declaration of results during the last five years

2.5.1.1. Number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
07	08	13	07	12

2.5.1

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
07	07	10	13	07

2.5.2

Average percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

2.5.2.1. Number of complaints/grievances about evaluation year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
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225	227	254	248	196
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Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
219	207	252	243	188

Remark : DVV made the changes as per list of students submitted revaluation application provided by HEI.

Average percentage of applications for revaluation leading to change in marks during the last five years

2.5.3.1. Number of applications for revaluation leading to change in marks year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
21	11	11	11	08

2.5.3

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

Remark : DVV has considered number of applications for revaluations to changes in marks not grade.

Number of teachers awarded international fellowship for advanced studies/ research during the last five years

3.1.3.1. The number of teachers awarded international fellowship for advanced studies / research year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
17	06	04	01	01

3.1.3

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
14	03	03	01	01

3.1.4

Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates, other research fellows in the

university enrolled during the last five years

3.1.4.1. The Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows in the university enrolled year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
63	45	42	47	35

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

Remark : DVV has not considered research associates without JRF, SRF provided by HEI.  
Percentage of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other similar recognition by government agency

3.1.6 3.1.6.1. The Number of departments with UGC-SAP, CAS, DST-FIST ,DBT,ICSSR and other similar recognition by government agency

Answer before DVV Verification : 21

Answer after DVV Verification: 00

Remark : Provided document has not reflect departments with UGC-SAP, CAS, DST-FIST ,DBT,ICSSR by HEI.

3.2.1 Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution during the last five years (INR in Lakhs)

3.2.1.1. Total Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year-wise during the last five years(INR in Lakhs)

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
190.34	21.20	14.98	11.24	20.08

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
190.34	8.40	4.80	1.84	18.79

Remark : DVV has made the changes as per letter of Grants for research projects sponsored by the non-government sources provide by HEI. Provided letter of Patient monitoring System for

Schizophrenia Research Foundation (SCARF) organization for 2018-19, Demo vehicle for mechanical engineering students for study and training purpose for 2014-15 has not reflect amount. DVV has not consider Grants received from same trust or management.

Grants for research projects sponsored by the government sources during the last five years

3.2.2.1. Total Grants for research projects sponsored by the government sources year-wise during the last five years(INR in Lakhs)

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
412.02	156.31	159.10	137.27	204.61

3.2.2

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
412.02	156.31	159.10	137.27	199.24

Remark : DVV has made the changes as per E-copies of the grant award letters of research projects sponsored by the government provide by HEI. DVV has not considered e-copies of grant letter earlier 2014-15.

Number of research projects per teacher funded, by government and non-government agencies, during the last five year

3.2.3.1. Number of research projects funded by government and non-government agencies during the last five years

3.2.3

Answer before DVV Verification : 78

Answer after DVV Verification: 77

3.2.3.2. Number of full time teachers worked in the institution during the last 5 years

Answer before DVV Verification : 373

Answer after DVV Verification: 373

Remark : DVV has not considered e-copies of grant award letter for 2011-12 provided by HEI.

3.3.2

Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry - Academia Innovative practices during the last five years

3.3.2.1. Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
84	83	67	70	55

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
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67	68	55	52	47
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Number of awards for innovation won by institution/ teachers/ research scholars/students during the last five years

3.3.3.1. Total number of awards for innovation won by institution/teachers/research scholars/students year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
54	46	41	39	46

3.3.3

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
52	42	34	36	43

Remark : DVV has not considered award received from any trust

Number of start-ups incubated on campus during the last five years

3.3.4.1. Total number of start-ups incubated on campus year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
27	03	03	01	02

3.3.4

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
15	03	03	01	02

Remark : DVV has not considered e-copies of sanction letter for 2019-20 provided by HEI.

3.3.4

Number of Patents published/awarded during the last five years

3.4.3.1. Total number of Patents published/awarded year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
20	04	05	01	02

Answer After DVV Verification :

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2018-19	2017-18	2016-17	2015-16	2014-15
19	03	04	01	01

Remark : DVV has not considered application Details provided by HEI.

Number of research papers per teacher in the Journals notified on UGC website during the last five years

3.4.5.1. Number of research papers in the Journals notified on UGC website during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
335	270	275	273	393

3.4.5

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
285	233	244	235	318

Remark : DVV has not considered those journals which link are not opened.

Number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings per teacher during the last five years

3.4.6.1. Total number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
105	125	170	151	251

3.4.6

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
104	125	170	149	251

Remark : Provided e-copies of books and chapters for 2015-16, 2018-19 has not reflect has not ISBN number.

3.6.2 Number of awards and recognition received for extension activities from Government /recognised bodies during the last five years

3.6.2.1. Total number of awards and recognition received for extension activities from

Government /recognised bodies year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
45	43	38	38	36

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
03	02	02	01	01

Remark : DVV has not consider Appreciation Letter of Educational services for visually challenged people for 2018-19.

Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the last five years

3.6.3.1. Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
51	50	49	39	36

3.6.3

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
28	37	31	31	25

Remark : DVV has not considered Open house exhibition , Regreen chennai marathon-keerapakkam, vandalur.

3.6.4

Average percentage of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years

3.6.4.1. Total number of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
5146	4435	4278	4410	3713

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
3721	3925	3058	1870	1054

Remark : DVV has not consider day program Talent search competition, Open house exhibition , Regreen chennai marathon-keerapakkam, vandalur.

Number of Collaborative activities for research, faculty exchange, student exchange per year

3.7.1.1. Total number of Collaborative activities for research, faculty exchange, student exchange year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
43	39	38	47	65

3.7.1

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
00	00	00	00	00

Remark : Relevant document not provide by HEI.

Number of linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the last five years

3.7.2.1. Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
83	96	96	66	94

3.7.2

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
70	89	85	88	103

Remark : DVV has not consider certificates of project completion.

4.1.4

Average percentage of budget allocation, excluding salary for infrastructure augmentation during the last five years.

4.1.4.1. Budget allocation for infrastructure augmentation, excluding salary year-wise during the last five years (INR in Lakhs)

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
3618.29	3599.08	3066.98	2925.88	5322.82

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
894.07	841.58	736.68	535.72	983.92

Average annual expenditure for purchase of books and journals during the last five years (INR in Lakhs)

4.2.4.1. Annual expenditure for purchase of books and journals year-wise during the last five years (INR in Lakhs)

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
51.90	36.89	96.46	108.14	73.60

4.2.4

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
14.48	8.51	12.05	23.95	20.29

Remark : DVV has not considered expenditure of library contingencies in audited statement provided by HEI.

Percentage per day usage of library by teachers and students

4.2.6.1. Number of teachers and students using library per day over last one year

4.2.6

Answer before DVV Verification : 2950

Answer after DVV Verification: 2817

Remark : DVV has made the changes as per average of students using library per day on 12/11/2018, 13/11/2018, 14/11/2018, 15/11/2018 and 16/11/2018.

4.4.1

Average Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, as a percentage during the last five years

4.4.1.1. Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year-wise during the last five years (INR in Lakhs)

Answer before DVV Verification:

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2018-19	2017-18	2016-17	2015-16	2014-15
1220.36	1355.13	858.93	684.61	786.53

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
270.48	655.42	310.40	276.11	361.37

Average percentage of students benefited by guidance for competitive examinations and career counselling offered by the institution during the last five years

5.1.4.1. Number of students benefited by guidance for competitive examinations and career counselling offered by the institution year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
4086	4126	3314	4254	4553

5.1.4

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
4109	4126	3320	4254	4553

Remark : DVV has made the changes as per list of number of students benefited by guidance for competitive examinations and career counselling provided by HEI.

Average percentage of placement of outgoing students during the last five years

5.2.1.1. Number of outgoing students placed year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
804	1022	896	1102	1113

5.2.1

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
803	1022	895	1101	1112

Remark : DVV has not consider mail copy for 2014-15, 2015-16, 2016-17 , 2018-19 and list of students for 2015-16.

5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at

national/international level (award for a team event should be counted as one) during the last five years

5.3.1.1. Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
30	22	05	03	10

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
14	13	04	01	07

Average number of sports and cultural activities / competitions organised at the institution level per year

5.3.3.1. Number of sports and cultural activities / competitions organised at the institution level year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
70	63	62	63	66

5.3.3

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
41	51	50	51	57

6.3.2

Average percentage of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the last five years

6.3.2.1. Number of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
217	258	260	304	265

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15

174	172	129	178	132
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Remark : DVV has not consider letter of memo.

Average number of professional development / administrative training programs organized by the University for teaching and non teaching staff during the last five years

6.3.3.1. Total number of professional development / administrative training programs organized by the Institution for teaching and non teaching staff year-wise during the last five years

Answer before DVV Verification:

6.3.3

2018-19	2017-18	2016-17	2015-16	2014-15
83	104	80	80	59

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
29	64	54	37	26

Average percentage of teachers attending professional development programs viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Program during the last five years

6.3.4.1. Total number of teachers attending professional development programs, viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Programs year-wise during the last five years

Answer before DVV Verification:

6.3.4

2018-19	2017-18	2016-17	2015-16	2014-15
366	350	356	346	338

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
366	298	302	323	295

6.4.2 Funds / Grants received from non-government bodies, individuals, Philanthropists during the last five years (not covered in Criterion III) (INR in Lakhs)

6.4.2.1. Total Grants received from non-government bodies, individuals, philanthropists year-wise during the last five years (INR in Lakhs)

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
201.57	208.40	259	282.5	201.86

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
201.57	228.80	259	282.50	201.86

Average number of quality initiatives by IQAC for promoting quality culture per year

6.5.3.1. Number of quality initiatives by IQAC for promoting quality year-wise for the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
35	89	47	57	55

6.5.3

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
03	06	04	04	05

Number of gender equity promotion programs organized by the institution during the last five years

7.1.1.1. Number of gender equity promotion programs organized by the institution year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
12	18	17	16	14

7.1.1

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
11	18	17	15	14

7.1.8

Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years

7.1.8.1. Total expenditure on green initiatives and waste management excluding salary component year-wise during the last five years(INR in Lakhs)

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15



690.66	831.59	342.81	405.97	243.56
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Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
671.15	830.16	341.55	47.05	243.50

Number of Specific initiatives to address locational advantages and disadvantages during the last five years

7.1.10.1. Number of specific initiatives to address locational advantages and disadvantages year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
13	29	16	15	14

7.1.10

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
04	03	07	06	04

Number of initiatives taken to engage with and contribute to local community during the last five years (Not addressed elsewhere)

7.1.11.1. Number of initiatives taken to engage with and contribute to local community year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
12	16	18	22	15

7.1.11

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
05	03	01	01	03

Remark : DVV has made the changes as per report provided by HEI.

7.1.17

Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties during the last five years

7.1.17.1. Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration,

communal harmony and social cohesion as well as for observance of fundamental duties year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
15	23	18	18	16

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
13	15	12	12	09

## 2.Extended Profile Deviations

ID Extended Questions

Number of seats earmarked for reserved category as per GOI/State Govt rule year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
2439	2285	1714	1638	1643

1.2

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
2124	2022	1491	1429	1433

Total Expenditure excluding salary year-wise during the last five years ( INR in Lakhs)

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
4890.55	4991.10	4022.37	3718.63	6182.96

1.5

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
3470.63	2658.15	2218.65	2312.63	3047.52