

School of Physical and Chemical Sciences

Department of Physics

S. No.	Name of the Supervisor and Designation	Email Id	Supervisor Recogn No.	Area of Expertise	Vacancy (as of 30.08.2024)	Faculty Home Page
1.	Dr. I. Raja Mohamed Professor	rajamohamed@cre scent.education	PH/09/03	 Nonlinear Dynamics : Theory and Experiment Stochastic Resonance, Chaos Circuit design and applications Computing with Chaos and noise-assisted computation Design of Memristor-based circuits Signal processing: Image encryption, decryption, Cryptography 	6	https://crescent.education/universi ty/schools/school-of-physical-and- chemical-science/department-of- physics/faculty-info/faculty- members/dr-i-raja-mohamed/
2.	Dr. G.V. Vijayaraghavan Professor	vijayaraghavan@cr escent.education	PH/16/11	 Nonlinear Optics Crystal Growth Materials Science Thin Film Science and Technology 	3	https://crescent.education/universi ty/schools/school-of-physical-and- chemical-science/department-of- physics/faculty-info/faculty- members/dr-g-v-vijayaraghavan/
3.	Dr. S. Sathik Basha Professor	sathik.basha@cres cent.education	PH/16/12	 Surface Coating Technology Solar cell nano science and technology Energy Applications Thin Film Technology 	4	https://crescent.education/universi ty/schools/school-of-physical-and- chemical-science/department-of- physics/faculty-info/faculty- members/dr-s-sathik-basha/



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4.	Dr. M. Md. Sheik Sirajuddeen Associate Professor	msheiksiraj@cresc ent.education	PH/17/12	 Condensed Matter Physics Computational materials science Thin film Semiconductor (Simulation and synthesis) Solid State Physics Theoretical and Experimental Materials science 	1	https://crescent.education/universi ty/schools/school-of-physical-and- chemical-science/department-of- physics/faculty-info/faculty- members/dr-m-mohamed-sheik- sirajuddeen/
5.	Dr. R. Indirajith Asst. Prof. (Sel. Gr.)	indirajith@crescent .education	PH/12/09	Thin filmCrystal GrowthNano Material preparation	1	https://crescent.education/universi ty/schools/school-of-physical-and- chemical-science/department-of- physics/faculty-info/faculty- members/dr-r-indirajith/
6.	Dr. R. Amiruddin Asst. Prof. (Sr. Gr.)	amir@crescent.ed ucation	PH/17/15	 Fabrication and characterization of optoelectronic devices such as (i) Ultraviolet (UV) Photodiodes and (ii) Light Emitting Diodes (LEDs)/Solar cells Fabrication and characterization of Resistive random access memory (ReRAM, Memristor) and Ferroelectrics-based memory devices Semiconductor Nanowires - Growth, Characterization and study on its luminescent centers 	2	https://crescent.education/universi ty/schools/school-of-physical-and- chemical-science/department-of- physics/faculty-info/faculty- members/dr-r-amiruddin/



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7.	Dr. M. Vijayajayanthi Asst. Prof. (Sr. Gr.)	vijaya@crescent.e ducation	PH/21/18	 Nonlinear dynamical systems Optical solitons and their collisions in birefringent fibres Study of solitons, rogue waves, breathers in integrable systems Harnessing optical solitons to implement optical computing and quantum computing Electrical solitons in nonlinear transmission lines 	1	https://crescent.education/universi ty/schools/school-of-physical-and- chemical-science/department-of- physics/faculty-info/faculty- members/dr-m-vijayajayanthi/
8.	Dr. E. A. K. Nivethaa Asst. Prof.	nivethaa@crescent .education	PH/23/19	 Nanomaterials Biopolymer based nanocomposites for the prolonged, sustained and targeted delivery of anticancer drugs and for colorimetric sensor applications 	4	https://crescent.education/universi ty/schools/school-of-physical-and- chemical-science/department-of- physics/faculty-info/faculty- members/dr-e-a-k-nivethaa/



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9.	Dr. Lakshmipriya.M Asst. Prof.	lakshmipriya@cres cent.education	PH/23/20	 Crystal Growth Nanomaterials Material Science 	3	https://crescent.education/universi ty/schools/school-of-physical-and- chemical-science/department-of- physics/faculty-info/faculty- members/dr-m-lakshmipriya/
10.	Dr.J.Sivasankari Asst. Prof.	sivasankari@cresc ent.education	PH /23/21	 Nanotechnology Core shell quantum dot Spintronics Nano materials Device fabrication Solid State physics 	4	https://crescent.education/universi ty/schools/school-of-physical-and- chemical-science/department-of- physics/faculty-info/faculty- members/dr-j-sivasankari/
11.	Dr. T.Kamalesh Asst. Prof.	kamalesh@cresce nt.education	PH/23/22	 Crystal Growth by solution and melt techniques Shock waves 	4	https://crescent.education/universi ty/schools/school-of-physical-and- chemical-science/department-of- physics/faculty-info/faculty- members/dr-t-kamalesh/



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12.	Dr. K.Vinisha Rani Asst. Prof.	vinisharani@cresc ent.education	PH/24/24	 urface Modification Of Textile Materials Using Glow Discharge Plasma Atmospheric Pressure Plasma Technology (DBD) Plasma Enhanced Chemical Vapor Deposition (PECVD) Plasma Sputtering Thin Films 	4	https://crescent.education/universi ty/schools/school-of-physical-and- chemical-science/department-of- physics/faculty-info/faculty- members/dr-k-vinisha-rani/
13.	Dr. R.Rizwana Asst. Prof.	rizwana@crescent. education	PH/24/23	 Nonlinear Dynamics Nonlinear circuit elements and its Applications 	4	https://crescent.education/universi ty/schools/school-of-physical-and- chemical-science/department-of- physics/faculty-info/faculty- members/dr-r-rizwana/



Department of Chemistry

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1.	Dr. N. Hajarabeevi Professor	hajarabeevi@cresce nt.education	CH/09/04	 Environment Chemistry Corrosion Studies 	4	https://crescent.education/university/schools/s chool-of-physical-and-chemical- science/department-of-chemistry/faculty- info/faculty-members/dr-n-hajara-beevi/
2.	Dr. S. Kutti Rani Professor	skrani@crescent.edu cation	CH/09/02	 Kinetics and Catalysis Nanomaterials synthesis and applications Schiffs Base and its Applications 	6	https://crescent.education/university/schools/s chool-of-physical-and-chemical- science/department-of-chemistry/faculty- info/faculty-members/dr-s-kutti-rani/
3.	Dr. S. Bhagavathy Professor	bhagavathy@cresce nt.education	CH/10/08	 Synthetic Organic Chemistry Synthesis of heterocyclic compounds Synthesis of chiral intermediates using carbohydrates 	4	https://crescent.education/university/schools/s chool-of-physical-and-chemical- science/department-of-chemistry/faculty- info/faculty-members/dr-s-bhagavathy/



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4.	Dr. Revathi Purushothaman Professor	revathip@crescent.e ducation	CH/13/19	 Materials for solar still, microelectronic applications, biomedical and packaging applications Biopolymers High temperature and high performance polymers Nanocomposites and polymer nanocomposites Mesoporous and nano materials 	5	https://crescent.education/university/schools/s chool-of-physical-and-chemical- science/department-of-chemistry/faculty- info/faculty-members/dr-revathi- purushothaman/
5.	Dr. A. Shajahan Associate Professor	ashajahan@crescent .education	CH/15/20	 Chemical Kinetics Catalytic chemistry Synthetic chemistry and in vitro studies Environmental chemistry. 	4	https://crescent.education/university/schools/s chool-of-physical-and-chemical- science/department-of-chemistry/faculty- info/faculty-members/dr-a-shajahan/



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6.	Dr. Swapan Kumar Das Associate Professor	swapandas@ crescent.edu cation	CH/21/25	 Sol-gel synthesis: porous and nanomaterials catalytic functionalization (metal NPs, metal oxide, metal ion c Design and fabrication of porous membranes for gas separation and purification, nanofiltration, waste water treatment, and water purification Micro- and mesoporous adsorbents for gas adsorption and storage, separation and purification, and waste water treatment Design and synthesis of fluorophore- decorated periodic mesoporous (FPMO) organosilica for drug delivery, sensor, separation, and catalysis Heterogeneous catalysis includes C-C coupling, alkane and methane oxidation, carboxylation of saturated hydrocarbons with CO, aromatic alkylation, photocatalysis, and biodiesel production. 	5	https://crescent.education/univer sity/schools/school-of-physical- and-chemical- science/department-of- chemistry/faculty-info/faculty- members/dr-swapan-kumar-das/
7.	Dr. J. Herbert Mabel Associate Professor	<u>herbertjmabel</u> @crescent.e ducation	CH/09/06	 Material Science Heterogeneous Catalysis Coordination Complexes Gas Adsorption Metal Coating 	2	https://crescent.education/univer sity/schools/school-of-physical- and-chemical- science/department-of- chemistry/faculty-info/faculty- members/dr-j-herbert-mabel/



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8.	Dr. M. Asha Jhonsi Associate Professor	asha@cresce nt.education	CH/11/11	 Photoinduced interaction studies Carbonaceous nanomaterials and quantum dots Solar energy conversion- DSSC, QDSSC, Perovskite solar cells fabrication Luminescent nanomaterials for Energy, environment and biological applications Waste to value added products 	5	https://crescent.education/univer sity/schools/school-of-physical- and-chemical- science/department-of- chemistry/faculty-info/faculty- members/dr-m-asha-jhonsi/
9.	Dr. M. Vajjiravel Associate Professor	vajjiravel_m @crescent.e ducation	CH/13/15	 Organic Electronic Devices (OPV, OLED and OFET) Kinetics of polymerization, various polymerization techniques, phase transfer catalyzed reactions Sustainable polymer chemistry and materials Design and synthesis of novel molecules and materials for versatile applications. Heterocyclic compounds 	3	https://crescent.education/univer sity/schools/school-of-physical- and-chemical- science/department-of- chemistry/faculty-info/faculty- members/dr-m-vajjiravel/
10.	Dr. Noor Aman Ahrar Mundari Associate Professor	nooraman_a m@crescent. education	CH/13/16	 Catalysis Nanomaterials Materials for Energy and Environment Photocatalysis Specialty Chemicals 	4	https://crescent.education/univer sity/schools/school-of-physical- and-chemical- science/department-of- chemistry/faculty-info/faculty- members/dr-noor-aman-ahrar- mundari/



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11.	Dr. K. Karthikeyan Associate Professor	<u>karthikeyan</u> <u>kesav@cresc</u> ent.education	CH/13/18	Organic SynthesisCatalysisNano materials synthesis	2	https://crescent.education/univer sity/schools/school-of-physical- and-chemical- science/department-of- chemistry/faculty-info/faculty- members/dr-k-karthikeyan /
12.	Dr.N.Vasimalai Asst. Prof. (Sel. Gr.)	<u>vasimalai@cr</u> <u>escent.educa</u> <u>tion</u>	CH/18/21	 Nanotechnology Biosensor Environmental Applications Materials Science Electronic and Energy applications 	1	https://crescent.education/univer sity/schools/school-of-physical- and-chemical- science/department-of- chemistry/faculty-info/faculty- members/dr-n-vasimalai/
13.	Dr. Jasmine Annajothi Jacob Asst. Prof.	<u>jasmine@cre</u> <u>scent.educati</u> <u>on</u>	CH/24/26	 Synthesis, Stabilization and Surface modification of metal nanoparticles by various methods Synthesis of Semiconductor nanoparticles Nano toxicity studies, Antioxidant studies, etc Mechanistic study of formation of metal/semiconductor nanoparticles 	4	https://crescent.education/univer sity/schools/school-of-physical- and-chemical- science/department-of- chemistry/faculty-info/faculty- members/dr-jasmine-annajothi- jacob/
14.	Dr. Tuhin Subhra Dash <mark>Asst. Prof</mark> .	tuhin@cresce nt.education	CH/24/28	Magnetic MaterialsInorganic Chemistry	4	https://crescent.education/univer sity/schools/school-of-physical- and-chemical- science/department-of- chemistry/faculty-info/faculty- members/dr-tuhin-subhra-dash/



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15.	Dr. S.Aravindhan Asst. Prof.	aravindhan@ crescent.edu cation	CH/24/29	Peptide chemistryBioorganic chemistryBioinorganic chemistry	3	https://crescent.education/univer sity/schools/school-of-physical- and-chemical- science/department-of- chemistry/faculty-info/faculty- members/dr-s-aravindhan/
16.	Dr. Sivasankaran. D Asst. Prof.	sivasankaran @crescent.e ducation	CH/24/27	 Synthetic Organic Chemistry Asymmetric Synthesis Natural Product synthesis 	4	https://crescent.education/univer sity/schools/school-of-physical- and-chemical- science/department-of- chemistry/faculty-info/faculty- members/dr-d-sivasankaran/