DEPARTMENT OF BASIC SCIENCES AND HUMANITIES



SCIENTIA

NEWSLETTER

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Paper Publications

Dr. Deepthi Jayan K.

- "Thermo-electro-rheological properties of graphene oxide and MXene hybrid nanofluid for vanadium redox flow battery: Application of explainable ensemble machine learning with hyperparameter optimization", FlatChem, Elsevier, January 3, 2024
- "Design and Numerical Simulation of B-γ CsSnI3-Based Perovskite Solar Cells:
 Conventional versus Inverted Configurations", Solar Energy, Elsevier, January 1, 2024
- "Self-assembled Vapor-Transport-Deposited SnS Nanoflake-based Memory Devices with Synaptic Learning Properties", Applied Surface Science, Elsevier, March 1, 2024
- "CHARTING NEW HORIZONS: UNRIVALLED EFFICIENCY AND STABILITY IN PEROVSKITE SOLAR CELLS", Physica Status Solidi (a)- Applications and Materials Science, Wiley, March 6, 2024
- "Computational Analysis of Ternary Cation Perovskite based Solar Cells Employing Transition Metal Chalcogenide, Graphene Derivatives, and SWCNT as Hole Transport Layers", Materials Today Communications, Elsevier, June 19, 2024
- "A State of the Art Review on MXene based Hybrid Nanomaterial for Energy Storage Applications", Journal of Alloys and Compounds, Elsevier, June 2, 2024

Funded Projects

As part of the RSET Seed Money Scheme, a research project titled "Tailored PbSe Quantum Dots as Nanofluidic Enhancers: Synthesis and Multifaceted Characterisation for Advanced Thermal Management Applications," led by Ms. Meera P. S. and Dr. Ragin Ramdas M., was approved on January 18, 2024.

Book Chapter Publications

Dr. Deepthi Jayan K. & Dr. Ragin Ramdas M.

• "Electronic, Electrical and Optical Properties of MXenes", MXene Reinforced Polymer Composites: Fabrication, Characterization and Applications, Wiley-Scrivener Publishing ISBN- 9781119901044, January 25, 2024

Dr. Anju C.

 "Polymer/MXene Composites for Supercapacitor and Electrochemical Double Layer Capacitor Applications", MXene Reinforced Polymer Composites: Fabrication, Characterization and Applications, Wiley-Scrivener Publishing ISBN- 9781119901044, January 25, 2024

Papers Presented

Dr. Ragin Ramdas M.

- presented a paper titled "Synthesis and Comparative Study of CsSnI3 Perovskite
 Thin Films with PolyVinyl Alcohol as Additives" in Second International Conference
 on Fluid, Thermal and Energy Systems (ICFTES 24) organised by NIT Calicut in
 association with IIChE-KRC, ISHMT-RCT, UK National heat transfer committee &
 Dept. of Mechanical & Mechatronics Engg. Stellenbosch University on June 06,
 2024
- presented a paper titled "Formulation of Gallium Based Nanoconductive Ink: A New Avenue to Printed Electronics" in the International Conference on Technological Advancements in Civil and Mechanical Engineering 2024 organised by KMEA Engineering College in Association with Universiti Teknologi MARA, Shah Alam, Malaysian on February 22, 2024

Programmes Attended

Dr. Deepa K Baby

 attendend a talk on "Macromolecular Nucleic Acid Delivery Vehicles and Bioconjugates Via Parallel Experiment and Computat", organised by ACS Science Talks, March 4, 2024

Academic Achievements and Administrative Roles

Dr. Deepthi Jayan K.

• reviewed a manuscript for Modeling and Simulation in Materials Science and Engineering, IOP Science, March 24, 2024

- reviewed a manuscript for the journal, PSS (a), Wiley, January 22, 2024
- contributed as a University Question Paper setter for APJ KTU PhD entrance examination, January 1, 2024
- scrutinised question paper for the discipline of Physics, APJ KTU PhD entrance examination (Physics), February 15, 2024
- was appointed as a journal reviewer for Journal of Photochemistry & Photobiology, A:
 Chemistry, Elsevier, May 20, 2024
- was appointed as a journal reviewer for Modeling and Simulation in Materials Science and Engineering, IOP Science, March 06, 2024
- was appointed as a journal reviewer for Discover Applied Science, February 27, 2024

Dr. Ragin Ramdas M.

• scrutinised question paper for the discipline of Chemistry, APJ KTU PhD entrance examination (Chemistry), February 12, 2024

Faculty as Resource Person

Mr. Vinay Menon

- served as a resource person for a Faculty Development Programme on "Interactive Tools for Effective Classes", organised by Rajagiri Business School, Kakkanad, May 27, 2024
- handled an informal session during the Google Developer Student Clubs Meet at JAIN University, Infopark Campus, May 12, 2024
- judged a stand-up comedy competition organised by College of Engineering Trivandrum, in connection with their Cultural Fest, May 11, 2024

Ms. Jinsha T. K.

 served as a team manager for APJAKTU Interzone Cricket Championship, held at NSS College of Engineering, Palakkad, April 15-17, 2024

Dr. Anju C.

 delivered a lecture on "Advancements in Hybrid Supercapacitors: Integrating Conducting Polymers for Enhanced Performance" during a conference on "Fueling the Future: New Energy Alternatives" at Bharata Mata College, Thrikkakara, March 01, 2024

Programmes Organised

Voice Hunt 2024

The Department of Basic Sciences & Humanities in association with the Department of Mathematics, organised Voice Hunt 2024, a music competition exclusively for first-year B.Tech. students of RSET. The competition had three rounds for Western category and four rounds for Eastern category, held over a period of three months. Mr. Joshin Jose, Carnatic vocalist and IT professional, and Mr. Yadunandhanan, Carnatic Vocalist & Title Winner of Voice Hunt 2017, served as the judges for the finale, which was conducted on May 14, 2024.









Zumba Fitness Workshop

On April 29, 2024, Ms. Jinha T K, organised a Zumba Fitness Workshop as part of Health and Fitness Awareness Programme for faculty.





Programmes Organised

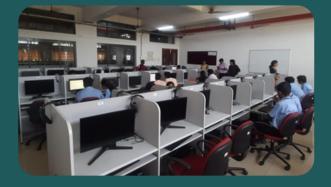
English Language Day Competitions

Lord of the Quiz

The discipline of English, had organised the preliminary round of Lord of the Quiz, a language and literary quiz for the students of all batches on March 01, 2024. Of the 13 teams that participated in the prelims, 5 teams qualified for the final round. The final round of the quiz was conducted on Friday, April 19, 2024. The following teams emerged as the winners of the final round of Lord of the Quiz:

- 1st Position Maneesh James (S2 CSB) & Gayathri Binoj (S2 CSB)
- 2nd Position Fathima Naja (S2 CU) & Minha M (S2 CU)
- 3rd Position Noel Antony Alex (S2 CU) & Ashwin M A (S2 ECA)







Hamlet's Reverie

On March 15, 2024, the discipline of English, organised a declamation competition, Hamlet's Reverie, for the students of all batches. The event saw participation from students of S2, S4, S6 & S8. The winners of the competition were:

- 1st Position Nanditha Sajeev (S4 ECC)
- 2nd Position Arundhati Nair (S4 CU)
- 3rd Position Keerthi B Nair (S4 ECB) & Astin John (S2 ECA)





Newly Joined Faculty

Ms. Kiran Jayan

Ms. Kiran Jayan earned her Master's degree in English from the University of Hyderabad in 2020. She cleared the UGC-NET in English during her postgraduate studies and is currently pursuing a Master's in Clinical Psychology from IGNOU. In February 2024, she joined Rajagiri School of Engineering and Technology as an Assistant Professor of English in the Department of Basic Sciences and Humanities.

Relieved Faculty

Dr. Rejeesh T. Chacko

Dr. Rejeesh T. Chacko, Associate Professor of Physical Education, moved on from his role on May 31, 2024. He joined as faculty in the Department of Physical Education, Union Christian College, Aluva.



Editorial Team

Dr. Ragin Ramdas M.

Mr. Sujith S.

Mr. Rajeesh Rajkumar