



SCIENTIA

DEPARTMENT OF BASIC SCIENCES AND HUMANITIES

DEPARTMENT PROGRAMMES



The third session of the National Webinar series 'Ethics Matters',

'Ethics and Law' was held on January 9, 2021 and the session was handled by Dr. Mini S, Professor & Director, Centre for Competition Law and Policy, The National University of Advanced Legal Studies, Cochin. The session emphasized the importance of law in ethics and how ethics and law are linked together.

The fourth session of the series on 'Professional Ethics', was handled by Dr. Anoop George, Assistant Professor, Department of Humanities & Social Sciences, IIT Palakkad, on February 6, 2021. The session emphasized the relevance of inculcating the values of professional ethics into work life and the implications of not following the same.



The fifth session of the national webinar series 'Expert Voices' was on 'Redefining Leadership: The Transformation for Future', on January 23, 2021. The session handled by Dr. Sini V. Pillai, Assistant Professor, Department of Business Administration, CET School of Management, College of Engineering, Trivandrum, touched upon the important qualities required for an effective leader.



A two day international webinar on 'Football Training and Basics' was organized by the department with RSET Sports Club on January 5 and February 5, 2021 respectively via Zoom Online platform. The sessions were led by Mr. Justin Padikakudi—U8 Football Trainee -Vienna, Austria.

A One-week physical fitness program was conducted for first year students from March 22 to 25, 2021. The programme was initiated to cultivate physical activity among students who are continuously attending online classes in the current pandemic situation.



A webinar on *Leadership Principle for Management During Pandemic* was organized on February 19, 2021. The session handled by Ms. Amulya Kurian, Assistant Professor, Department of Management, Christ College of Science and Management, Karnataka, encouraged the participants to think about the different dimensions in which leadership can be practiced especially during the pandemic.

FACULTY ACHIEVEMENTS



Ms. Josiya P Shaju qualified GATE 2021 in Humanities and Social Sciences Section: English with All India Rank 272.



Dr. Ragin Ramdas M bagged SPSI Gold Medal Award 2020 for Best PhD Thesis in the Area of Polymer Science & Technology from Society of Polymer Science India on April 8, 2021.

STEPS TO A GOOD HEALTH DEPARTMENT INITIATIVE BY PHYSICAL EDUCATION

RSET WALKING TRACKS

RSET walking tracks was inaugurated by Director Rev. Fr. Dr Jose Kuriedath in the presence of Principal Dr. Sreejith P.S and all staff members of RSET on March 16, 2021. RSET walking tracks promote the health and wellness of our staff and students. Walking regularly will help to prevent or manage various health conditions including heart diseases, high blood pressure, type 2 diabetes, and strengthens bones and muscles, improves your mood, improves your balance and co-ordination. RSET has two track categories

Orange Track: A half kilometer walking track starting from the main block and ending at the same place. Orange lines will help you to walk through this track and enjoy the warmth of the sun during day hours.

Green Track: A one kilometer walking track starting and ending in the KE Block. Clearly marked green lines will lead you through the biodiversity areas of RSET.



RSET FITNESS CENTRE

RSET Fitness Centre for men (First Floor- KE Block Extension) was blessed by the Director Rev. Fr. Dr Jose Kuriedath on January 5, 2021.

RESEARCH ACTIVITY

- Mr. Rejeesh T Chacko successfully completed pre-submission of thesis on April 23, 2021. A Post-Graduate in Physical Education, he is about to complete his research on *Electromyographic Analytical Effect of Modified Strength Training on Lower Extremity Muscles Among Football Players* under the guidance of Dr. V A Manickam, Associate Professor, Department of Physical Education & Health Sciences, Alagappa University, Karaikudi, Tamil Nadu
- Ms. Deepthi Jayan K successfully completed pre-submission of thesis on April 24, 2021. She is about to complete her research on *Enhancement of Efficiency and Stability of Solar Cells- A Theoretical Study* at Kannur University under the guidance of Dr. Varkey Sebastian, Associate Professor & Head, Department of Physics, Nirmalagiri College, Kannur
- Ms. Anju C successfully defended her thesis on June 14, 2021. A Post-Graduate in Chemistry, she had been undertaking her research in Polymer Composites. She completed her research in *Studies on Conducting Polymer Composites for Energy Storage Applications* under the guidance of Dr. Shiny Palaty, Principal, Bharata Mata College, Thrikkakara

RESEARCH SCHOLAR

Ms. Sruthi S L (Ph.D. Full—Time Scholar with KTU—CERD Fellowship) registered for Ph.D. in KTU under the supervision of Dr. Rinku Jacob (Faculty—Physics) on January 29, 2021. The first Doctoral Committee meeting was held on January 29, 2021 for the process of registration.

FACULTY AS RESOURCE PERSON



Dr. Silvy Mathew, was invited to deliver a talk on the topic 'Positive Mental Health & Well Being', by Lions Club International, Fujairah, UAE, on March 12, 2021



DEPARTMENT SEMINARS

- The department seminar for 2021 started with 'Physical Activity During the Pandemic' delivered by Mr. Rejeesh T Chacko, on January 16, 2021, where he stressed the importance of physical activity in day-to-day life, especially during the on-going COVID-19 pandemic.
- The second department seminar titled 'Conducting Polymers and its Applications', delivered by Ms. Anju C, on February 27, 2021, threw light upon the use of conducting polymers in electronic, optical and energy storage applications.
- The third department seminar titled 'Take Time to Make Your Soul Happy', delivered by Sr. Alphonsa Thomas, on April 10, 2021, emphasized on the significance of meditation in reducing stress and increasing a person's sense of equanimity and well-being during this COVID-19 pandemic.
- The fourth department seminar titled 'Feminism and Practice of Freedom', delivered by Dr. Sonia Paul, on May 29, 2021, touched upon the core tenets and features of the feminist philosophy of teaching and learning.
- The fifth department seminar titled 'Materials for Diverse and Smart Applications', delivered by Dr. Ragin Ramdas M, on June 26, 2021, discussed about Smart Materials, also called intelligent or responsive materials.

FACULTY PRESENTATIONS

Ms. Anju C presented a paper on *Flake like Ternary Doped Polyaniline/Activated Carbon composite- An efficient Hybrid Super capacitor Material* at the National Conference On Changing Trends in Polymer Science & Technology at NIT Calicut, on January 20, 2021.

Dr. Deepa K Baby presented a paper on *Optimization of biodiesel production by*

transesterification of palm oil and evaluation of biodiesel quality at the Second International Conference on 'Recent Advances in Materials and Manufacturing' (ICRAMM 2020) held at the Department of Mechanical Engineering, Velalar College of Engineering and Technology, Erode, Tamil Nadu, on February 1, 2021.

Ms. Deepthi Jayan K presented a paper on *Performance Analysis of Inorganic Perovskite Solar cells with Rubidium Germanium Iodide as Absorber Layer for Sustainable Energy Conversion* at the International Mul-

tidisciplinary Conference on Agriculture, Aquaculture, Environment and Sustainability organized by Scientific and Environmental Research Institute, Kolkata, West Bengal in association with International Academy of Science and Research (IASR), Kolkata on January 30, 2021. She also presented a paper on *Device Modelling and Performance Analysis of $CH_3NH_3PbX_3$ (X: I, Br, Cl) based Perovskite Solar Cells with SnO_2 and CuO as Transport Layers* at the 7th International Conference on Electrical Energy Systems (ICEES - 2021) organized at SSN College of Engineering, Chennai by IEEE on February 13, 2021.

FACULTY PUBLICATIONS



Ms. Deepthi Jayan K

Ms. Deepthi Jayan K along with Dr. Varkey Sebastian published five papers

- * On Modelling and Comparative Performance Analysis of Tin Based Mixed Halide Perovskite Solar Cells with IGZO and CuO as Charge Transport Layers, International Journal of Energy Research, Wiley Publications on May 14, 2021
- * On Simulation and Optimization Studies on CsPbI₃ based Inorganic Perovskite Solar Cells, Solar Energy, Elsevier, April 28, 2021
- * On Comparative Performance Analysis of Mixed Halide Perovskite Solar Cells with Different Transport Layers and Back Metal Contacts, Semiconductor Science and Technology, IOP Science, March 30, 2021
- * On Comparative Study on the Performance of Different Lead Based and Lead-Free Perovskite Solar Cells in the Advanced theory and Simulations, Wiley Publications on March 25, 2021
- * On Comprehensive device modelling and performance analysis of MASnI₃ based perovskite solar cells with diverse ETM, HTM and back metal contacts, Solar Energy- Elsevier, on March 15, 2021
- On Device Modelling and Performance Analysis of CH₃NH₃PbX₃ (X: I, Br, Cl) based Perovskite Solar Cells with SnO₂ and CuO as Transport Layers in IEEE Xplore, as proceedings of IEEE on February 13, 2021

Dr. Deepa K Baby & Dr. Ragin Ramdas

- * Dr. Deepa K. Baby & Dr. Ragin Ramdas M., published a paper (chapter) on XLPE: Crosslinking Techniques and Recycling Process. In: Thomas J., Thomas S., Ahmad Z. (eds) book 'Crosslinkable Polyethylene. Materials Horizons: From Nature to Nanomaterials', Springer, Singapore, May 2021. https://doi.org/10.1007/978-981-16-0514-7_7
- Dr. Ragin Ramdas M with co author Santhosh Kumar K.S., published a paper on Organic-Inorganic Hybrid Polytriazoles; Synthesis and Shape Memory Properties, Polymers for Advanced Technology, 32 (5), May 2021, 2151-2158, <https://doi.org/10.1002/pat.5245>
- Dr. Deepa K. Baby, published a paper on Optimization of biodiesel production by transesterification of palm oil and evaluation of biodiesel quality, Materials Today Proceedings, Feb 2021, [https://doi.org/10.1016j.matpr.2020.11.995](https://doi.org/10.1016/j.matpr.2020.11.995)

Ms. Parvathy N

- Ms. Parvathy N published a paper on Exploring the Bi-Fold Tale of Homelessness: A Reading of Paul Bettany's "Shelter", in the International Journal of Creative Research Thoughts, Volume 9, Issue 5, May 2021

PROGRAMMES ATTENDED BY FACULTY

S.No.	Faculty	Webinar	Conference/	Course	Workshop	Training/FDP
1	Sr. Alphonsa Thomas	13	1		1	1
2	Dr. Anju C.		1	1	1	1
3	Dr. Deepa K. Baby		1			1
4	Ms. Deepthi Jayan K.	2	1		1	3
5	Mr. Sujith S.					1
6	Ms. Josiya P. Shaju					1
7	Ms. Lekshmi Vijayakumar	3				
8	Mr. Rejeesh T. Chacko	1				
9	Ms. Sinu Jacob			4		1
10	Dr. Silvy Mathew	1		1		1