

SCIENTIA

INSIDE THIS ISSUE

DEPARTMENT PROGRAMMES

In connection with the International Yoga Day (June 21), Department of Basic Sciences & Humanities, Rajagiri School of Engineering & Technology, in association with 'Ekam' Oneness Yoga foundation, organized a seven day online yoga programme from June 15 - 21, 2021. 380 students and 70 faculty members actively attended the seven day yoga programme. All the participants received certificates from the Ministry of Ayush, Government of India.

To celebrate Tokyo Olympics 2021, the Department of Basic Sciences & Humanities, in association with the Sports Club of Rajagiri School of Engineering and Technology, organized an Olympic Talk on "Beyond the Games: Promoting Sports and Olympic Values in the Society", and a live online Olympic quiz on August 5, 2021. Sri. S. Rajeev (Secretary-General, Kerala Olympic Association and Vice President, Swimming Federation of India) served as the resource person for the talk.

The fifth session of the National Webinar Series "Ethics Matters", titled "Environmental Ethics- The Way Forward" was organised on September 11, 2021. Dr. Siby K George, Professor of Philosophy, Department of Humanities and Social Sciences, IIT Bombay served as the resource person.

A webinar on "Recent Trends and Developments in Nanocomposites" was jointly organised by the disciplines of Chemistry and Physics from October 18 to 20, 2021. The sessions were handled by Dr. Jiji Abraham, Assistant Professor, Department of Chemistry, Vimala College (Autonomous), Thrissur and Dr. R. S. Rajeev, Scientist/Engineer, SG, Polymers & Special Chemicals Division, Vikram Sarabhai Space Centre, Thiruvananthapuram.

The discipline of Economics organised a webinar on "Competitive Federalism in India- The Pandemic Scenario" on October 2, 2021, with Dr. Veena Ramachandran, Assistant Professor, BITS Pilani as the speaker.

In connection with the International Anti-Corruption Day, the discipline of Economics organized a talk on "Anti Corruption Initiatives and the Role of Youth" on December 4, 2021. Mr. P. R. Ravikumar (Indian Revenue Service Retd.), Independent External Monitor of National Mineral Development Corporation (NMDC), Hyderabad, and Cochin Port Trust served as the resource person.

Faculty Appointments Outside RSET	2
Faculty Publications	2
Proposed/ Sponsored Projects	2
Faculty Presentations	3
Certified Course	3
Dept. Seminar, Faculty as Resource Person	3
Board of Studies	4
Christmas Celebration	4
Dept. Social Initiative	4
Programmes Attended by Faculty	4

COMPETITIONS FOR STUDENTS

In connection with the 75th Independence Day, the discipline of English conducted an essay writing competition on the topic, "When Freedom Becomes Paradoxical: Who is Free and Who isn't, 75 Years After Independence" in August 2021. Winners were awarded certificates.

An essay writing competition on the topic "Dispelling The Shadow Pandemic" was organised by the discipline of English, in connection with International Day for the Elimination of Violence against Women in November 2021.

In connection with the International Anti-Corruption Day, the discipline of Economics, organized English and Malayalam elocution competitions with the theme put forward by the UN, "Your Right, Your Role, Say No to Corruption" on December 9, 2021.

FACULTY ACHIEVEMENTS



Mr. Rejeesh T. Chacko was awarded his doctoral degree in "Electromyographic Analytical Effect of Modified Strength Training on Lower Extremity Muscles among the Football Players", under the guidance of Dr. V. A. Manickam, Assistant Professor, Department of Physical Education and Health Sciences, Alagappa University, on December 29, 2021.



The paper presented by Sr. Alphonsa Thomas, "A Process of Using Photocatalytic Reactors to Remove Pharmaceutical Compounds from Waste Water", was nominated the 'Best Oral Presentation' during AICERA 2021- International Conference on Advanced Nanomaterials (ICAN 2021) on December 14, 2021, organized by Centre for Nanoscience and Technology and Department of Basic Sciences of Amal Jyothi College of Engineering and School of Energy Materials, Mahatma Gandhi University, along with the Faculty of Chemistry- The Gdansk University of Technology from December 14-16, 2021.

PROPOSED/SPONSORED PROJECTS

Ms. Deepthi Jayan K. and Dr. Ragin Ramdas M., (as Co-investigator), submitted a project proposal titled "Combined Computational and Experimental Study on Lead-Free Double Perovskite for Photovoltaic Applications" to KSCSTE in collaboration with Nirmalagiri College, Kannur, on October 28, 2021.

FACULTY APPOINTMENTS OUTSIDE RSET

Dr. Deepa K. Baby has been appointed as a reviewer for Polymer Bulletin-Journal-Springer, September 28, 2021

Dr. Anju C. has been appointed as:

- Reviewer for International Journal of Material Science and Applications, October 10, 2021
- Editor for Journal of Nanotechnology and Nano-Engineering (MAT Journals), October 13, 2021

Dr. Ragin Ramdas M. has been appointed as an editorial board member of International Journal of Materials Science and Applications (IJMSA), Science Publishing Group, October 18, 2021

Dr. Rinku Jacob was appointed as a reviewer for the articles for the 10th International Conference on Advances in Computing and Communications (ICACC-2021), RSET, October 23, 2021

Ms. Deepthi Jayan K. has been appointed as a reviewer for the following list of journals:

- International Journal of Energy Research
- Academia Letters
- International Journal of Materials Science and Applications
- Journal of Electronic Materials
- The Chemical Report, Wiley

Mr. Rejeesh T. Chacko served as a selector for APJAKTU D-Zone intercollegiate volleyball men's selection trials held at MA College, Kothamangalam on December 2, 2021

Mr. Rejeesh T. Chacko served as a selector for APJAKTU D- Zone intercollegiate football men's selection trials held at RSET, Kakkanad on December 16, 2021

Mr. Rejeesh T. Chacko served as a selector for APJAKTU Inter-Zone intercollegiate football men's selection trials held at TKM College, Kollam from December 18 - 19, 2021

Ms. Sinu Jacob served as a selector for APJAKTU D-Zone intercollegiate basketball women's selection trials held at FISAT, Mookkanoor, Angamaly on December 20, 2021

Ms. Sinu Jacob served as a selector for the APJAKTU Inter-Zone intercollegiate basketball women's selection trials held at MBCET, Trivandrum on December 23, 2021

Dr. Shibu P. P. served as a selector for APJAKTU D-Zone intercollegiate kabaddi men's selection trials held at RSET, Kakkanad on December 15, 2021

FACULTY PUBLICATIONS

Ms. Deepthi Jayan K.

- "Ab Initio DFT Determination of Structural, Mechanical, Optoelectronic, Thermoelectric and Thermodynamic Properties of RbGeI₃ Inorganic Perovskite for Different Exchange-Correlation Functionals", Materials Today Communications, Elsevier, July 15, 2021
- "Enhancement of Efficiency of (FA)₂BiCuI₆ based Perovskite Solar Cells with Inorganic Transport Layers", Optical Materials, Elsevier, October 12, 2021
- "Bandgap Tuning and Input Parameter Optimization for Lead-free All Inorganic Single, Double and Ternary Perovskite based Solar Cells", Solar RRL, Wiley Publications, December 13, 2021

BOOK CHAPTER PUBLICATIONS

Ms. Deepthi Jayan K., published a chapter titled "Computational Modelling of Lead based Mixed Halide Perovskite Solar Cells: An Advanced study", in New Visions in Science and Technology (International book), Vol 3, August 17, 2021

Dr. Ragin Ramdas M. published a chapter titled "High Temperature Materials for EMI Shielding Applications", in Nanostructured Materials for Electromagnetic Interference Shielding, October 30, 2021

Dr. Deepa K. Baby, published a chapter titled "Conducting Polymer-Based Materials for EMI Shielding Applications", in Nanostructured Materials for Electromagnetic Interference Shielding, October 31, 2021

FACULTY AS RESOURCE PERSONS

Ms. Josiya P. Shaju served as a keynote speaker for "Snehaghadha: A Talk on Women Empowerment and Gender Equality", organized by Kazhukottur Village Library on July 23, 2021

Dr. Deepa K. Baby delivered an invited talk on the topic- "Higher Miscibility and Loading Capacity of Chitosan-graft-poly styrene in Epoxy Blends: Supreme Optical Clarity with Improved Mechanical Properties", during International Online Conference on Advanced Materials-2021(ICAN-2021), December 14, 2021

Ms. Deepthi Jayan K. and Dr. Ragin Ramdas M. were invited speakers for International Online Conference on Advanced Materials-2021(ICAN-2021) and delivered a talk on "First Principle DFT Estimation of Structural, Mechanical and Optoelectronic Properties of Sc₄C₃ MXene for Photovoltaic Applications" on December 16, 2021

FACULTY PRESENTATIONS

Ms. Josiya P. Shaju presented a paper titled "Demythifying History: A Study on the Construction of Devotee in the Context of Women's Entry in Sabarimala"; National Webinar Series, Eidos: Reflections on Culture, PG & Research Department of English, Sree Kerala Varma College, Thrissur, August 02, 2021

Sr. Alphonsa Thomas presented a paper titled "A Process of Using Photocatalytic Reactors to Remove Pharmaceutical Compounds from Waste Water"; AICERA 2021- International Conference on Advanced Nanomaterials (ICAN 2021), December 14, 2021

Dr. Rinku Jacob presented a paper titled "Characterizing Bifurcations using Link Density"; Conference on Nonlinear Systems and Dynamics (CNSD 2021) conducted by Centre for Nonlinear Science & Engineering, SREE, SASTRA Deemed University, Thanjavur, December 22, 2021

Mr. Rajeesh Rajkumar presented a paper titled "Uncovering the Ideology within the Idyll: Examining the Residual Colonial Effect in Mayavi"; Decolonising the Panel, Deconstructing the Panel -Two-Day Virtual International Conference on Post Colonial Studies in Comics and Graphic Narratives from South Asia, IIT Patna, September 26, 2021

Ms. Deepthi Jayan K. presented a paper titled "All Organic CsGeI₃ Perovskite Solar Cells- A Modelling Study"; International Virtual Conference on Mathematical and Computational Models-ICMCM '21, October 30, 2021

ONLINE CERTIFICATE COURSE ON NANO COMPOSITES

The certificate course- "Nanocomposites: From Laboratory Concept to High-End Applications", offered by the Department of Basic Sciences & Humanities started on October 31, 2021 in online mode. The main objective of this course is to enable the students to acquire knowledge in the concepts of nanocomposites for engineering applications. This certificate course is mainly for the students pursuing B.Tech. in Mechanical, Civil, Electronics and Communication, Chemical, Metallurgical and Materials Engineering and B.Sc. Chemistry. It is also open for researchers, faculty members and practicing engineers. The course is planned for a duration of 18 hours and is handled by experts in the field. It provides a great opportunity for the graduate students to gain ideas and insights on research projects on nanocomposites. Thirteen registered participants are attending the course currently. The course will end in the first week of March, 2022.

DEPARTMENT SEMINARS

On July 31, 2021, Ms. Josiya P. Shaju, faculty of English, presented on the topic, "English and the World: An Overview on the Emergence and Evolution of English as a Global Language"

On September 25, 2021, Dr. Deepa K. Baby, faculty of Chemistry, made a presentation on "Stimuli Responsive Hydrogels in Drug Delivery Applications"

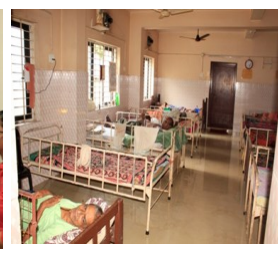
On October 30, 2021, Dr. Shibu P. P., faculty of Physical Education, made a presentation on "Importance of Physical Fitness and Health"

On November 27, 2021, Ms. Sangeeta Regi Mathew, faculty of English, presented on "A Glimpse of MBTI"

DEPARTMENT SOCIAL INITIATIVE: SAHYOG

As part of the department social initiative 'Sahyog' helmed by Sr. Alphonsa Thomas, the following activities were conducted:

- **N-95 Mask Distribution:** In July 2021, as a first step to the social initiative programme, N-95 masks to the drivers, gardeners, securities, janitors of our college and to the hawkers at the Collectorate road side.
- **Grocery contribution to Jesus Bhavan Old Age Home, Kalady:** In December 2021, members of Sahyog visited Jesus Bhavan, for aged and mentally impaired people, at Mankuzhi near Kalady, and provided groceries.



BOARD OF STUDIES MEETINGS

The Second BoS Meeting of the disciplines were held on the following dates:

- Chemistry: July 24, 2021
- Economics: July 31, 2021
- English: June 17, 2021
- Physics: August 10, 2021

EDITORIAL TEAM

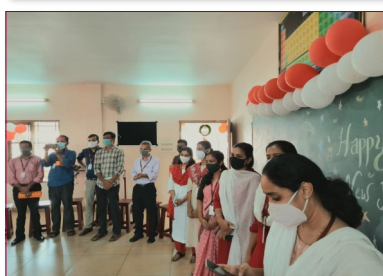
Dr. Ragin Ramdas M
Mr. Rajeesh Rajkumar
Ms. Saritha V
Ms. Sinu Jacob
Mr. Sujith S



DEPARTMENT NEWSLETTER

DEPARTMENT CHRISTMAS CELEBRATION

On Thursday, December 23, 2021, the Department of Basic Sciences and Humanities hosted a Christmas Celebration. Fellow faculty members from the Department of Mathematics were invited to join us at the Chemistry lab for the celebration. The lab, which was decorated by faculty members, mirrored the spirit of the season. Dr. Ramkumar P B, HoD, DMA, along with Dr. Antony Varghese and Dr. Sonia Paul, HoD, DBSH delivered their Christmas messages after which the celebration commenced. In the midst of the hardships caused by the pandemic, the celebration helped to restore a sense of hope and joy among friends and family.



PROGRAMMES ATTENDED BY FACULTY

Sl. No.	Name of Faculty	Webinar	Conference/ Seminar	Course	Training/ FDP
1	Sr. Alphonsa Thomas	1	1		1
2	Dr. Anju C.	2	2		1
3	Ms. Bincy Mole Baby	1			
4	Dr. Deepa K. Baby	1	3		
5	Ms. Deepthi Jayan K.	3			3
6	Ms. Joann Jose Neelamkavil	3			1
7	Ms. Lekshmi Vijaykumar	2	1		
8	Ms. Neethu George	1			1
9	Dr. Ragin Ramdas M.	3			2
10	Mr. Rajeesh Rajkumar	4	1	1	1
11	Mr. Rejeesh T. Chacko				
12	Ms. Sangeeta Regi Mathew	2			1
13	Dr. Silvy Mathew		2	1	1
14	Ms. Sinu Jacob	1			
15	Dr. Sonia Paul			1	
16	Mr. Sujith S.				2
17	Ms. Saritha V.	2	1		