SCHOOL OF SCIENCE OP JINDAL UNIVERSITY, RAIGARH

QUARTERLY REPORT

January – March 2024

Knowledge ^{for}Life



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Release of Second Issue of SoS Newsletter UNMESH

Immensely delighted to announce that the Newsletter of the School of Science-UNMESH (Volume-1, Issue-2) has been released by the Honorable Vice Chancellor, Dr RD Patidar Sir.

This issue of the newsletter is a testament to the happenings and achievements of the students and faculty members from all dimensions of the school for the last six months. Heartiest congratulations to all on its successful release!



Value added Course organized on "Universal Human Values"

The School of Science in association with UHV Cell, OPJU organized a thirty-hour Value-Added Course on Universal Human Values from 5-28 Feb 2024. Around fifty participants from across the schools and departments registered and successfully participated in that course. Nine resource persons from the various departments of the university and an external resource person, Shri L.K. Tiwari delivered sessions on the universal human values like truth, love, nonviolence, peace, sacrifice, righteousness and so on as prescribed by the UGC and NEP 2020. There was a special session on 'Design and Human values' which was delivered by Dr Satyabrata Das. The course was concluded by a feedback session in which participants submitted filled in feedback cum test form and shared their learning experience.



Guest lecture/ Expert Talk Organized

School of Science, OPJU organized a lecture "The Power of Positive Attitude in Professional Transformation"

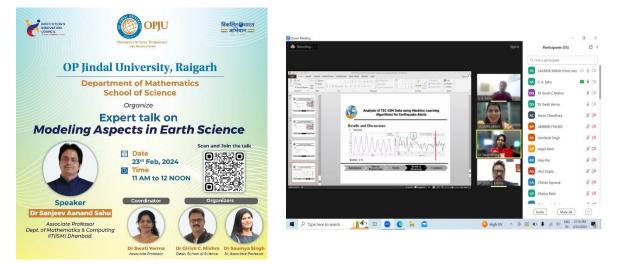
A webinar on "**The Power of Positive Attitude in Professional Transformation (Journey of a Young Women from Suburban Roots to Corporate Heights**)" was organized on 12th March 2024 with a focus on the implementation of various Life Skills (Jeevan Kaushal) to our graduate learners to handle their personal, interpersonal, and professional lives holistically, irrespective of discipline. The resource person was Ms Sangita Mishra, Head of Inside Sales, Bahwan CyberTek, Dubai (UAE).



Expert talk on "Modeling Aspects in Earth Science" organized

Earth science modelling involves the creation of mathematical or computational models to represent natural phenomena such as climate patterns, geological processes, atmospheric dynamics, and ecosystems. To understand various aspects of these studies an expert talk was organized on 23rd February 2024 by the department of Mathematics on "Modeling Aspects in Earth Science". It focused on the application of various modelling techniques to understand and simulate complex processes within the Earth's system. The talk cover different approaches, including numerical simulations, data-driven models, and machine learning applications in Earth science. Dr. Sanjeev Anand Sahu, Associate Professor, Department of Mathematics and Computing. IIT(ISM), Dhanbad, Jharkhand, India was the resource person. He discussed on the challenges and advancements in model development, validation, and the integration of multidisciplinary data to improve our understanding of Earth's intricate systems. The talk was coordinated by Dr Swati Verma & Dr Saumya Singh, Department of Mathematics, SoS.

Around a hundred participants were highly enriched with the session which was focused on the application of various modeling techniques to understand and simulate complex processes within the Earth's system. Earth science modeling involves the creation of mathematical or computational models to represent natural phenomena such as climate patterns, geological processes, atmospheric dynamics, and ecosystems.



Guest lecture on "Biodiversity: Study and Documentation with Reference to Field Study" organized

To impart knowledge about the about the study and documentation on Biodiversity through field study among the students, Department of Biotechnology, School of Science OPJU organized a guest lecture entitled "Biodiversity: Study and Documentation with Reference to Field Study" for B.Sc. 2nd year Biotechnology (H) students on 12th January 2024. The resource person for the session was Dr. Ramesh Kumar Tamboli, Head, Department of Zoology, Kirodimal Govt. Arts & Science College, Raigarh. In the session, he explained the method to study and prepare documents of biodiversity of a particular species or genera of an area. An interactive session was also held, in which students also query about the research to be carried on Biodiversity study. The event was organized by Dr. Taniya Sengupta Rathore and Mr. Hemant Kumar.



Guest lecture on "Ethno Medicinal Plant and their Conservation" organized

Chhattisgarh has a wide range of medicinal plant diversity. To impart knowledge about the ethno medicinal plants of Chhattisgarh among the students, Department of Biotechnology, School of Science OPJU organized a guest lecture entitled "Ethno Medicinal Plant and their Conservation" for B.Sc. 2nd year Biotechnology (H) students on 10th January 2024. The invited speaker for the session was Prof. Jyoti Bhoy, Lecturer, Department of Botany, PG Govt. College Tamnar. In the session, she explained about the diversity of medicinal plants available in local region and the method of their conservation. An interactive session was also held, in which students also present their view regarding the conservation methods of plant species. The event was coordinated by Dr. Taniya Sengupta Rathore and Mr. Hemant Kumar.



Guest lecture on "The Impact of Climate Change on Plants" organized

To impart awareness about the Climate Change and its impact, Department of Biotechnology, School of Science OPJU organized a guest lecture entitled "The Impact of Climate Change on Plants" for B.Sc. 1st year Biotechnology (H) students on 2nd January 2024. The invited speaker for the session was Dr Sushma Patel, Assistant Professor, Department of Botany, Kirodimal Govt. Arts & Science College, Raigarh. In the session, she explained how the changing climate increase stress that weaken plant resilience, disrupting forest structure and ecosystem services. An interactive session was also held, in which students also present their view regarding the preserving methods of plant species. The event was hosted by Dr Pranjal Kumar and Dr Taniya Sengupta Rathore, Department of Biotechnology, SOS, OPJU.



Research Activities

Paper Publication

 Mayank Pandey, Kalim Deshmukh, Karthik Dhandapani, and Ram Sevak Singh, Influence of Nano-CeO2 and Graphene Nanoplatelets on the Conductivity and Dielectric Properties of Poly(vinylidene fluoride) Nanocomposite Films, Langmuir 2024 40 (3), 1909-1921 DOI: 10.1021/acs.langmuir.3c03360

Conference Attended

 Manas Ranjan Mishra presented a paper entitled "The impact of higher order chemical reaction on a moving plate in a porous medium and MHD forced convection of Jeffrey Nanofluid" on Three-Day "International Conference on Complex Analysis and Computational Fluid Dynamics 2024" during 16-18 February, 2024, at KIIT Deemed to be University, Bhubaneswar.

Talk Delivered

 Online Invited Lecture on 'Listening Skill for Success' by Dr Sanjay Kumar Singh, Professor (Humanities), organised by Govt. College, Kayatha, Ujjain (MP), 31st January 2024.

Dr. Girish Chandra Mishra, Dr. Dipti Shukla, Dr. Swati Verma & Dr. Deepak Patel of • School of Science delivered invited lectures in a Faculty Development Programme organized by Govt. K.G. Arts & Science College, Raigarh from 22-29 February 2024.

FDP Attended

Dr Taniya Sengupta Rathore attended two-week Faculty Development Program on • "Advancement in Biotechnology and Chemical Engineering" held from 02/01/2024 to 12/01/2024 organized by Vel Tech Hi Tech Dr. Rangarajan Dr. Shakunthala Engineering College, Chennai Tamil Nadu.

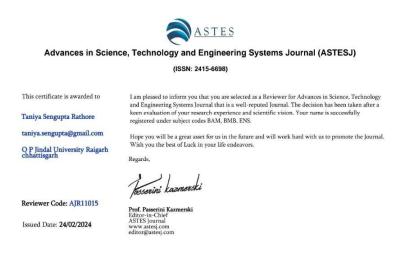
	Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College An Autonomous Institution Approved by AICTE, New Delhi Attiliated to Anna University, Chennal
	Certificate of Participation
This is to	certify that Dr. Taniya Sengupta Rathore, Associate Professor from O.P. Jindal University, has
	in the two weeks virtual Faculty Development Programme on/"Advancements in Biotechnology and
	Engineering (ABC – 2024)" jointly organized by Department of Biotechnology and Department of Chemical
Engineering	n, Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College, Avadi, Chennai, Tamil
	02 nd January 2024 to 12 th January 2024.
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Dr Ankur Rastogi & Dr Deepak Patel attended Online One Week Faculty Development • Programme on "Recent Research Advances in Sustainable Development & Capacity Building" from 1-7 February 2024.

Government Bilasa Girls P. G. Autonomous College	Government Bilasa Girls P. G. Autonomous College
Organized Online One Week Faculty Development Program on "Recent Research Advances in Sustainable Development & Capacity Building" (1"-7" February, 2024)	Organized Online One Week Faculty Development Program on "Recent Research Advances in Sustainable Development & Capacity Building" (1"-7" February, 2024) (PH:THEI@ATELOPTACIDERATION
CERTIFICATE OF PARTICIPATION This is to certify that Dir/Mr./Mrs./MrsAngle.gr. from_O.P. J.TudaU University Railogi from_O.P. J.TudaU University for a set of the s	CENTIFICATE OF FAILURE TABLE This is to certify that D//Mr/Ms/Ms_DeepakRet fromO.PJondelUniversityRaigetCChas participated in one week online Faculty Development Programme on Recent Research Advances in Sustainable Development and Capacity Building' held from 1st – Th February, 2024 (pinty organized by Department of Chemistry, Department of Computer Science and 1QAC, Government Billsa Girls' F. C. Automonous College, Billsour (C. G.), Hel/She has successfully completed program. We wish him/her a very good luck for higher future endeavour.
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Awards & Recognitions

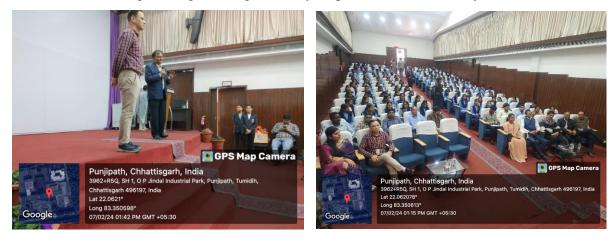
• Dr Taniya Sengupta Rathore Selected as Reviewer in Advances in Science, Technology and Engineering System Journal (ASTESJ)



Outreach Activity

Govt. College Gharghoda Exposure Visit

On 15th January 2024, an educational & exposure visit of BSc final year students (Maths & Bio) of Govt. College Gharghoda organized by Department of Chemistry, School of Science.



Club Activity

Just 3 Min: A PPT Challenge Organized by Technical Club

On March 1st, 2024, the TechX (Technical Club), School of Science OPJU organized **Just 3 Minutes: A PPT Competition** as part of its ongoing efforts to foster technical skills and creativity among students. Throughout the event, participants demonstrated a high level of enthusiasm and dedication, investing time and effort into crafting compelling PPTs.





National Science Day Celebration by Innovation Entrepreneurship Club

National Science Day was celebrated on 28th February 2024. During this inauguration of Microbiologist Society of India Student Chapter for Biotechnology Department, Oath taking ceremony for the elected candidates of Society of Science Studies and Poster Presentation Competition on "**Science Behind Sustainable Research**" were organized.



Ignite with Innovation organized by Innovation Entrepreneurship Club SWADHAYA

Innovation and Entrepreneurship Club (Swadhaya), SoS in association with Institution's Innovation Council (IIC) and OPJU Innovation Center organized an Ideathon Contest "**Ignite** with Innovation" on 16th February 2024. Students from across the departments divided into

eight teams participated in the event with their outstanding problem-solving ideas towards observed real-life problems in the surroundings, with great zeal and enthusiasm.



Movie Scoop organized by Cine Club NINAD

The event "**Moovie Scoop**" was planned on 9th February 2024 by the Cine Club of the School of Science, OPJU to create opportunities for social and educational development through participation and observation by watching an inspirational movie and analysing various social aspects and general studies based on the storyline and plots of the particular movie. All the participants enjoyed the show, which was followed by an interactive and critical discussion.



Student's Achievements

• UG students (11) of Biotechnology department, School of Science OPJU under the supervision of Dr Taniya Semgupta nad Mr Hemant Kumar participated in the national conference "Microbial Bioprospecting: Exploration and Conservation" on 5-6 February 2024, organized by Department of Biotechnology Govt V.Y.T Autonomous College, Durg Chhattisgarh in Association with the Microbiologist Society of India. Mahak Acharya, Shruti Kumari, Satish Gupta and Khushi Mishra secures 3rd place in PPT presentation and Kasish Naaz, M Akanksha, Shally Prajapat and Khushi Singh secured 3rd place in poster presentation.



 Ms Shobha Yadav, Student MSc 4th Chemistry, appointed as Chemist in DB Power Ltd., Raigarh.



- Ms Yogita Sahu and Ms Garima Chandra of BSc (H) Biotechnology 2nd semester, School of Science secured 2nd position in poster competition in International Conference on 'Biological Alterations and Applications for Next Generation Living World' during 1-2 March 2024 organized by department of Biotechnology, Govt, VYT PG Autonomous College, Durg.
- Ms Khushi Mishra of BSc (H) Biotechnology 2nd semester, School of Science received best paper award in 2nd Student National Conference on Social Economic Perspective on Sustainable Management of Water organized by NIT Raipur on 22nd March 2024.