

Research Cell

Research activities /Programs

(2023-2025)

in continuation.....

3rd Academic & Research Review Committee (ARRC-2024-2025)

3rd Academic & Research Review Committee (ARRC- 2025-2026)
GEMS Arts & Science College (Autonomous)
Ramapuram, Malappuram Kerala

Chairman  Dr.B.G Unni (Director Academic and Research)	Member Secretary  Dr.Naveen Mohan (Principal GEMS Arts and Science College)	Joint Member Secretary  Mr.Mohammed Navas (Vice Principal)	
Member Expert  Dr.R.Dinesh (Director ICAR Indian Institute of Spices, Calicut)	Member Expert  Dr. K V Suseela (Professor of Microbiology Amala Institute of Medical Sciences ,Thressur)	Member Expert  Prof. N.P Hafiz Mohammed (Former Prof. of Sociology, Farook college)	Member Expert  Prof. Dr. A Hameed (Head & Professor Dept. of Education , University of Calicut)
Permanent Invitee  Mr.Vasudevan .M (Vice chairman , GEMS Ltd)	Permanent Invitee  Mr.PT Hamza (Director, Board of Directors)	Member  Ms.Laila.VN (Director - Board of Directors)	
Member  Mr.Sivakumar . K (HOD Commerce)	Member  Mr.Sandeepan K.M (HOD Management Studies)	Member  Mrs. Sulthana Afroza (HOD English)	Member  Dr.Sandhya Balakrishnan (HOD BCA)
Member  Mr. Anoo Babu (HOD Computer Science)	Member  Mr.Muhammed Binshad (HOD Multimedia)	Member  Mrs. Rasna N K (HOD Microbiology)	Member  Mrs. Ranjusha V P (HOD Biotechnology)
Member  Mr.Abdul Rahman (HOD Geology)	Member  MrS.AnithaParveen (HOD MSW)	Member  Mrs. Arathy P Rajan (HOD BTM)	Member  Mr. Abhin PC (HOD Sociology)

RESEARCH TEAM



Dr. BALAGOPALAN UNNI

FRES (London), FIANSsc, FISAgBc, FICCE
Academic & Research Director

Former Chief Scientist and Area Coordinator (Biotechnology & Biological Sciences) and DADD-Fellow (Germany) and Fulbright Fellow (USA) retired from CSIR service on 31st Jan 2015 after 38 years of research career at CSIR North East Institute of Science & Technology Jorhat Assam. Appointed at **Assam down town University** as Director-Research in March 2015 and continued up to June 2019 and then re-designated as **Adviser Research since August 2019**). Back in Kerala, Dr.Unni is appointed as **Director Academic & Research** at **GEMS College of Arts & Science affiliated to University of Calicut since August 2019**. Both the positions are on honorary basis to strengthen the institutions in research areas. He did his BSc Biology (1972-74, Ewing Christian College, Alld University), MSc in Biochemistry(1974-76)(Second Rank) and Ph.D in Biochemistry from Allahabad University(1976-80) and PDF in Molecular Biology from Texas A&M University, USA(1988-91). Dr. Unni is specialized in Biochemistry Molecular Biology, and Biotechnology and well established in his area of research and completed more than 38 years of research in both basic and applied field of research. Dr.Unni got more than 130 research papers 180 abstracts, 35 papers in proceedings, 4 patents, 1 technology. 18 chapters in books, edited 3 books and 29 students received PhD degree under his guidance and supervision. Dr. Unni had completed more than 20 projects sponsored by Commonwealth Science Council, London, Ministry of Non-conventional Energy Sources, Department of Non-conventional Energy Sources Govt of India, North Eastern Council Govt of India, Department of Science & Technology, Department of Biotechnology, Central Silk Board, GB Pant Institute of Himalayan Environment and Development, CSIR and DRDO, Ministry of Defense, Govt of India during his scientific tenure at CSIR NEIST. Dr Unni received- Fulbright Travel Award/Fellowship (USA) Dr. B.M. Das Memorial Science award, Hebrew University Award-Awarded in the area of Juvenile Hormone Research H.R. Cama Memorial Travel Award, COSTED Travel Award,. DAAD- fellowship-Germany, Well Mark International Scholarship (USA) & Technology award in life sciences by CSIR, Govt of India . Best Fulbright Alumni Chapter Leader-South Asia Selected by the United States Education Foundation In India (USIEF), New Delhi .Nominated to represent India at the International Fulbright Scholars meet at Marrakech, Morocco- Nominated by United States Education Foundation In India, New Delhi . Dr. Unni is in the editorial board of more than eight indexed journal in the country .Dr.Unni was nominated to various state and central committees such as High power committee for development of sericulture activities Muga, Eri, Tassar and Mulberry in Assam nominated by Governor of Assam, .Expert in the area of non-mulberry sericulture, Ministry of

Textiles, Advisory Board, Post graduate Biotechnology programme, Academic Council, Assam Agricultural University, Research Council, Central Silk Board, Ministry of Textiles , DBT's Nominee for Bio-safety Committee ,Vice President SBC (India) Indian Institute of Science Bangalore, Vice President Indian Academy of Neuro-sciences, Member Fulbright Academy of Science & Technology, USA, Board of studies- Botany Nagaland University and Biotechnology Saugar University Madhya Pradesh., Fellow, Indian Academy of Neurosciences & Indian Society of Agricultural Biochemists, Fellow Royal Entomological Society, London UK and Scientific Advisor International Foundation of Science, Sweden, Member, Board of Studies Raiganj University (2017----), Member Research Review committee Tea Board of India (2016--2018), Member Advisory Committee Cancer Research Advisory Board, North East Cancer Hospital & Research Institute (2017--) President, Tea Improvement Consortium, Ltd, Tocklai Assam (2018-2020) . Dr.Unni visited USA, Germany, Israel,Jordan, France, Morocco ,UK, Thailand ,Jordan, Singapore ,UAE (Dubai) China and Greece under various exchange programmes



Dr. Deepthi.V.C

Research Officer/ Assistant Professor

PG Department of General Biotechnology

Dr. Deepthi.V.C, did her Master's in Biotechnology from Sathyabama University, Chennai securing the second rank in her program. She has completed her Ph.D in Biotechnology from University of Calicut. Her area of specialization is Plant Biotechnology, Microbiology and Molecular Biology. She has more than 7 years of research experience in plant biotechnology, mycology, protein purification, phytochemistry. She had published research articles in peer reviewed journals. She also deposited 22 fungal sequences to Gen Bank. She has attended several seminars and workshops, presented her research work and received Best Paper Award for her research presentation. Dr. Deepthi.V.C has joined in this college as Assistant Professor, PG Department of General Biotechnology and handled classes for both Under Graduated and Post Graduated students. She has been holding the position of Research Officer to promote and monitor the research activities of the college. She has submitted project proposals to national funding agencies.



Dr. SIJI MOL K

Assistant Research Officer/ Assistant Professor
PG Department of General Biotechnology

Dr. Siji Mol K, did her Masters in Biotechnology from Bharathiar University, Coimbatore. She has completed her Ph.D from Forest Research Institute, Dehra Dun in Forest Biotechnology. Her area of specialization is Plant Biotechnology, Bioinformatics, Genomics, Proteomics, Transcriptomics, Molecular Taxonomy. She had years of research experience in plant systematics, population genetics, biogeographical studies and expertise in NGS technology. She had published research articles in peer reviewed journals and book chapters. She has attended several seminars/workshops and presented her research work. Dr. Siji Mol has joined in this college as Assistant Professor, PG Department of General Biotechnology and handled classes for both Under Graduated and Post Graduated students. She has been holding the position of Convenor for Academic and Audit Committee to monitor the academic activities of the college. She had another role as **Assistant Research Officer** to organize research events in the institution. She has submitted project proposals to state and national funding agencies.



Ms. SHIJILA M V

Office Assistant (Research Cell)
GEMS Arts and Science College

Ms. Shijila M V is a highly qualified professional with a **Master's degree in Economics** and a diploma in **Computer Application**. With a strong academic background Shijila has excelled as an **Office Assistant**, demonstrating exceptional administrative skills. Currently, she holds the position of **Nodal officer** for various scholarship programs, showcasing her dedication to education and student support. In addition to her administrative responsibilities, she also serves as a clerk at the college offi

Brief Report on Sixth Academic and Research Review Committee meeting held at GEMS Arts and Science College (University of Calicut) on 7th December 2024



External members of ARRC Addressing at the meeting



Felicitated Prof.(Dr).Indira Devi (External Member of ARRC)

The Sixth Academic and Research Review Committee meeting of GEMS Arts and Science College was held on 07th December 2024 from 10:30 AM onwards at GEMS Theatre,

Library and Research Centre at the college campus. The Chairman of the college Sri. Manjalamkuzhi Ali could not attend the meeting at the beginning , however



Members of 3rd ARRC

he joined the meeting in between, and spent time with the external experts for some time. The 6th ARRC meeting was initiated by Dr.BG Unni, Chairman of ARRC & Director Academic & research by briefing the summary of the progress of the college in both academic and research front for the last one year (Jan to November 2024). Dr. Naveen Mohan, Member Secretary ARRC & Principal, presented the overall progress of the college in terms of academics, research, initiation of add on courses, certificate courses and infrastructure development of the institution. Few selected students were presented in brief about their concepts and ideas from their respective areas at the meeting. Few patent ideas were also initiated from the students projects work and that was also presented by the faculties .The progress of academic and research activities of each department, and future action plan were presented by the respective Head of the Departments.. Achievements of the faculties and students in academic/sports and extracurricular activities were detailed by Dr.Finose A, IQAC Coordinator &Asst Professor of GEMS Arts and Science College. The external experts (Prof.Dr. P. Indira Devi, Emeritus Professor, Former Director of Research, Kerala Agricultural University, Prof.Dr. N P Hafiz Mohammed, Professor, Department of Sociology, University of Calicut, and Dr. A Hameed, Professor, Department of Education, University of Calicut) were satisfied with the progress that the institution has made during the period. The put forward large number of suggestions and recommendations for the college in terms on short term and long term basis. The 6th ARRC meeting was the last sitting of 3rd ARRC ,and two of the external members namely Prof P,Indira Devi and Prof Anitha PM , for them, it was the last sitting of the meeting. On behalf of the ARRC, the Chairman ARRC Dr.BG Unni appreciated their

continuous effort and advice for the committee in both academic & research activities of the college since its inception, and also appealed to them for their continuous support in the coming period too. As a token of appreciation a beautiful memento was presented to them by the members of the 3rd ARRC at the function. Prof Indira devi in reply to that thanked the college management and ARRC for her nomination to serve in the ARRC, and also assured that the same will continue in future too whenever the institution needed their support

Sri Vasudevan M, Vice chairman, felicitated the gathering and delivered the concluding remarks of the meeting. He also asserted all the departments work together for the progress of the institution. Shri P T Hamza, Director, GEMS Arts and Science College, felicitated the gathering and appreciated the progress of the college at every level. The meeting ended with a vote of thanks delivered by Dr. Nayana P, Research Officer, GEMS Arts and Science College.

Brief Report on Seventh Academic and Research Review Committee meeting held at GEMS Arts and Science College (Autonomous) on 5th July 2025



External members of ARRC Addressing at the meeting

The Seventh Academic and Research Review Committee meeting of GEMS Arts and Science College was held on 5th July 2025 10:30 AM onwards at GEMS Theatre, Library and Research Centre at the college campus. The Chairman of the college Sri. Manjalamkuzhi Ali could not attend the meeting at the beginning, however he attended the meeting in between, and appreciated the efforts of the faculties and also talked about the current status of the college, and spent some time at the review meeting. The 7th ARRC meeting was initiated by **Dr.BG Unni, Chairman of ARRC & Director Academic & research** by briefing the summary of the progress of the college in both academic and research front for the period December 2024 to June 2025. **Dr. Naveen Mohan, Member Secretary ARRC & Principal**, presented the overall progress of the college in terms of academics, research, and also talked about the progress of the college from its inception in yearwise. One of the student from Commerce department presented in brief about other



Faculties and the Members of the 3rd ARRC (7th meeting) attended the meeting

concepts and ideas that was earlier presented at the student development program.. Patents published, accepted for filing and under process for filing to NRDC were presented by the respective faculties.. Thereafter projects prepared and submitted to various funding bodies, projects granted under seed money sanctioned by the college management and projects sanctioned by Department of Biotechnology under a special scheme were also presented by the respective faculties at the meeting..The progress of academic and research activities of each department, and future action plan were presented by the respective Head of the Departments..The external experts (Dr.R.Dinesh, Director ICAR-Indian Institute of Spices Research ,Calicut and Prof K.V Suseela Professor of Microbiology, Amala Institute of Medical Sciences, Thrissur)were satisfied with the progress that the institution has made during the period. They put forward few suggestions and recommendations for the college in terms on short term and long term basis.Prof. Dr. N P Hafiz Mohammed,Professor, Department of Sociology, University of

Calicut, and Dr. A Hameed, Professor, Department of Education, University of Calicut could not attend the meeting. The 7th ARRC meeting was the first sitting of 3rd ARRC.

Sri Vasudevan M, Vice- Chairman, felicitated the gathering and delivered the concluding remarks of the meeting. He also asserted all the departments work together for the progress of the institution. He also emphasized the importance of seeking guidance from Dr.BalagopalanUnni for the personal development of the faculty members, and the overall growth of the institution. Dr.BalagopalanUnni released his book entitled 'A Village Boy to



Released a book written by Dr.BalagopalanUnni

a Chief Scientist – Journey of My Life' on the occasion of the 7th Academic and Research Review Committee (ARRC) meeting. The meeting ended with a vote of thanks delivered by Dr.Nayana P, Research Officer, GEMS Arts and Science College.



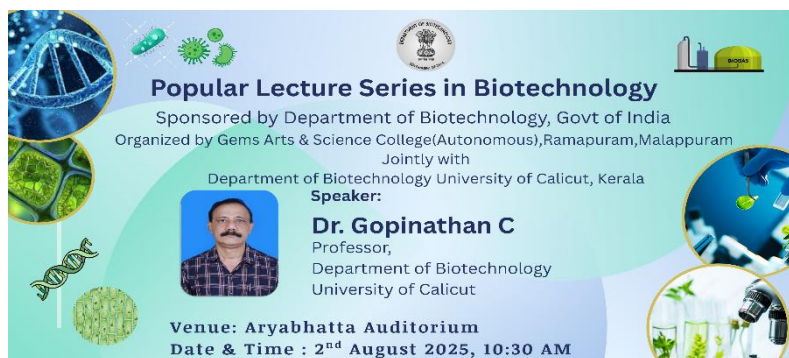
Department of Biotechnology Govt of India awarded a project to GEMS Arts & Science College (Autonomous) under the scheme POPULAR LECTURE IN BIOTECHNOLOGY

The Department of Biotechnology Govt of India approved and sanctioned a project entitled - "Popular Lectures in biotechnology" by Experts for popularization of biotechnology for financial assistance from Institutions / Universities which are actively working in the research area of Biotechnology. The Popular Lectures in biotechnology by experts will be organized for students from schools, colleges, universities & also for the general public to bring general awareness among them about the basic concepts, recent advances & potential of modern Biology & Biotechnology.

This lecture series being the most innovative event, aims to provide an open and stimulating scientific exchange that will give all the participants a good opportunity to share their experiences, Foster collaboration across industry and academia and evaluate emerging technologies in various aspect of biology and Biotechnology. The college will be organizing a series of three lectures in this financial year, two by external experts and one by an internal expert. Out of the three lectures ,at least one lecture will be organized in the local language(Malayalam) mentioned by the Director Academic & Research of the college. All the lecture series were arranged in August 2025 at the Auditorium, Biotechnology Department University of Calicut and other two lectures at the auditorium of St Mary's college, Thrissur in October 2025

GEMS Arts & Science College (Autonomous) jointly with Biotechnology Department, Calicut University organized the First Lecture Under the Scheme “ Popular Lecture Series in Biotechnology “ Sponsored by Department of Biotechnology , Government of India on 2nd August 2025 at Calicut University

GEMS Arts and Science College, in collaboration with the Department of Biotechnology, University of Calicut, successfully conducted the **first lecture in the Popular Lecture Series**, sponsored by the **Department of Biotechnology (DBT), Government of India**, at the University of Calicut on 2nd August 2025 . The program was held at the Aryabhata auditorium , University of Calicut, and it was inaugurated by the Prof. (Dr.) P.Raveendran, Vice Chancellor Calicut University..





Officials and the Vice Chancellor addressing the participants

The lecture was delivered by **Prof. C. Gopinathan**, Department of Biotechnology, on the topic “**High Rate Biomethanation: Scale-Up Issues and Opportunities.**” In his talk, Prof. Gopinathan discussed the potential of biomethanation as a sustainable waste-to-energy technology and highlighted the critical challenges faced during the scale-up process of biomethanation systems. He elaborated on the design of bioreactors, microbial efficiency, energy recovery, and the need for innovation to make large-



The students participants

Prof Gopinathan delivering the lecture

scale biomethanation commercially viable and environmentally friendly. The lecture marked an important step in promoting awareness of advanced biotechnological applications and encouraging interdisciplinary dialogue. The Popular Lecture Series aims to bring together experts and learners on a common platform to discuss contemporary scientific issues and foster a spirit of inquiry.

The lecture was very much appreciated by the students of nearby schools, colleges and the faculties attended the function. Prof. Anu Joseph Head of the Department Biotechnology, other faculties, Dr.SandhyaBalakrishnan Principal Investigator of the project, and Dr.AFinose Director IQAC along with the faculties from GEMS college also attended the function. The session was well-received and appreciated by all attendees for its relevance and academic depth.

**Mini projects (Seed money Grants) awarded to selected faculties by
the Management for the year 2025**

Principal Investigators	Project Title	Project No	Duration	Amount Sanctioned
 Irshad .P Assistant Professor Commerce	Exploring effective compensation management practices in Kerala : Strategies,Challenges ,and impact on employees performance.	GEMS/SM/02/2025	1 Year (1 st June 2025 to 31 st May 2026	Rs.25000/-
 Ms.Shameema .M Assistant Professor, Microbiology	Isolation and Characterization of Endophytic Microorganisms from <i>Strobilanthes alternata</i> and Evaluation of Their Bioactive Compound Activities.	GEMS/SM/03/2025	1 Year (1 st June 2025 to 31 st May 2026	Rs.25000/-
 Dr.Sijimol .K Assistant Professor Biotechnology	The targeted and non –targeted metabolite identification in Cinnamomum species of the Western Ghats	GEMS/SM/05/2025	1 Year (1 st June 2025 to 31 st May 2026	Rs.25000/-
 Ms.Resna NK Asst.Prof. Microbiology	Mushroom cultivation from small scale to large for rural women	GEMS/SM/01/2025	1 Year (1 st June 2025 to 31 st May 2026	Rs.25000/-
 Mr.AbdulRahmanCV, Asst.Prof.Geology	Delineating the Groundwater potential zones and sites for artificial recharge in Puzhakkattiri Panchayat.	GEMS/SM/04/2025	1 Year (1 st June 2025 to 31 st May 2026	Rs.25000/-

Other programs

GEMS Arts & Science college (Affiliated University of Calicut) celebrated the prestigious Seventeenth Foundation day along with Thirteenth Chairman's lecture on 27th Feb 2025



Foundation Day speech in Hybrid mode





Certificates of appreciation and awards were distributed to Students, Teaching and Non-teaching staff

The Research Centre, in collaboration with the Internal Quality Assurance Cell (IQAC), successfully organized the **17th Foundation Day of the college** jointly with **13th Chairman's Lecture** on **27th February 2025 at 2:30 PM onwards** in **GEMS Theatre**. The event was conducted in **hybrid mode**, allowing both in-person and virtual participation. The event commenced with a welcome address by **Dr. Naveen Mohan, Principal**, who highlighted the institution's journey and achievements. This was followed by a brief inspiring speech by **Sri. Vasudevan, Vice Chairman**, who reflected on the college's growth and commitment to academic excellence. A key highlight of the celebration was the **Chairman's Lecture Series**, introduced by **Dr. Balagopalan Unni, Director-Academic and Research**, who provided insights into the significance of the lecture series in fostering research and learning. The occasion marked another milestone in the institute's journey of academic excellence, research, and innovation. **The speaker, Dr. C. Anandharamakrishnan, Director, CSIR-National Institute for Interdisciplinary Science and Technology (NIIST), Trivandrum** delivered the speech on Foundation Day. The title of his talk was "Science, Technology and Innovation for a Sustainable Future". His insightful lecture focused on key advancements in sustainable energy, food technology, and climate change, providing valuable knowledge to the attendees. Dr. C. Anandharamakrishnan delivered an engaging and thought-provoking talk covering various critical areas of scientific research and sustainability such as: Climate Change & Human Impact: A paradigm shift from the idea that "Climate is changing" to the realization that "We have changed it.", Green Hydrogen Production, Utilization of wastewater for sustainable hydrogen



Certificates of appreciation and awards were distributed to Students, Teaching and non-Teaching staff

production, Second-Generation (2G) Ethanol: Potential applications in biofuel and energy sustainability, Indoor Light Harvesting & Bioenergy: Innovations to enhance renewable energy utilization., Food for Energy: Exploration of food-based energy solutions for sustainable consumption, 3D & 4D Food Printing: Cutting-edge advancements in food processing and production techniques, Engineered Gastrointestinal ARK System @ NIIST: A breakthrough in human digestive health research, Waste Valorization: Transforming waste into valuable products through sustainable practices, Biodegradable Products from Agro-Residues: Reducing plastic dependency through eco-friendly alternatives. GHG, Emissions from Food Production: Addressing greenhouse gas emissions associated with food industries, Meat Analogues & 3D-Printed Meat: Innovations in sustainable food alternatives., Global Packaging Scenario: Challenges and advancements in packaging materials, Plastic & Metal-Based Packaging Concerns: Environmental impact and possible alternatives, Strategies to Promote Sustainability: Solutions for reducing industrial and environmental footprints and Energy Reduction Technologies: Advances in energy-efficient industrial processes.



Launch of “GEMS Nexus”, a journal of diverse disciplines

The event witnessed active participation from faculty members, researchers, and students, both physically and virtually. Attendees had the opportunity to engage in an interactive question and answer, where Dr. C.Anandharamakrishnan addressed their queries regarding green energy solutions, food technology advancements, and sustainable industrial practices. The lecture was highly appreciated for its relevance to contemporary global challenges, particularly in the domains of renewable energy, climate change mitigation, and sustainable food systems. The insights shared during the session sparked discussions on innovative research opportunities within the institute. The event also witnessed the launch of "GEMS Nexus", a journal of diverse disciplines, which aimed to publish book chapters in interdisciplinary subjects.

Certificates of appreciation and awards were distributed to Students, teaching and non-teaching staff for their commendable efforts in various institutional activities and programs. The recipients were acknowledged for their excellence in academic performance, administrative support, extracurricular activities, and overall commitment to institutional growth. Sri. P.T. Hamza, Director, Board of Management of the college delivered an inspiring felicitation speech, highlighting the significance of teamwork, dedication, and continuous learning in an academic institution. He emphasized the importance of recognizing and rewarding the hard work of staff members as a means of motivation and encouragement. Dr. Finose A, IQAC Coordinator concluded the event with a heartfelt vote of thanks. He expressed gratitude to the organizing team, dignitaries, faculty, and staff for their active participation and contribution to the success of the foundation day function. He also extended appreciation to the management for their support in organising the program.

Chairman Lecture series initiated from March 2021.

The following speakers namely

Prof.Dr.Kamlesh Gulia from Chitra Tirunal institute of Medical Sciences & Technology, Trivandrum, India

"Sleep for good health and happiness: Nature's samurai"(Dated 21st March 2022)."

Dr.Shashi Bala Singh, Director National Institute of Pharmaceutical Education & Research, Hyderabad, India

"Scientific Insights in Yoga"

3)Prof. Asha Banu Soletti ,Dean of Social Sciences Tata Institute of Social sciences , INDIA

"Ensuring mental health and wellbeing for all: a global priority"

4)Dr.E Purushotham Former Chief of NRDC INDIA,

"IP Key for Achieving Atmanirbhar Bharat"

5)Dr.Vinay K Khanna, Chief Scientist and Professor –AcSIR and –Indian Institute of Toxicology Research, Lucknow, INDIA

"Quercetin - A Flavonoid with Preclinical Promises as a Neuroprotectant."

6)Dr.Vibha Ahuja, Chief General Manager, Biotech Consortium India Limited, INDIA

"Biotechnology for sustainable agriculture and food security: Opportunities and challenges"

7)Prof. Anil Sahasrabudhe, Chairman NAAC, Bangalore &

"Faculty and leadership development for persuing excellence in acdemic institutions"

Prof.GD Sharma, President , Association of Indian Universities ,INDIA

"Quality assurance in educational institutes"

8)Dr.Devivasha Bordoloi, Post Doctoral Researcher, Wistar Institute, USA

"Novel Immunotherapy approaches for ovarian cancer"

9)Prof.SAAD TAYYAB Professor of Pharmaceutical Chemistry,Malaysia

"Serum Albumin as a therapeutic modulator- Insights into drug interaction"

10)Rajesh Nampoodiri , Chief operating office India, GCQ Certifications India

"Importance and Application of Quality Management in Educational Organization"

11)Dr.Rajib Gogoi, Additional Director Botanical Survey of India ,Sikkim INDIA

"My journey as a Student of Plant Taxonomy"

12)Dr.Renu Swarup , Former Secretary, Department of Biotechnology, Govt of India

"Biotechnology -Revolutionsing innovative product development"

13)Dr.Anantha Radhakrishnan Director CSIR NIIST Trivandrum Kerala , INDIA

"Science, Technology & Innovation for a Sustainable Future"

14)Prof Dr.Ms. V. Bharathi Harishankar Vice Chancellor,Avinashilingam Institute
for Home Science and HigherEducation for Women (Deemed
University)Coimbatore INDIA

"Bridging the skill gap".

15)Prof. P Raveendran, Vice Chancellor, Calicut University Kerala INDIA and

:The Changing Colours of Higher Education"

16)Prof (Dr.) Prakash Babu , Vice Chancellor Central University , Pondicherry India

"Role of Youth in Vikasit Bharat"

Chairman's Lecture Series organized by GEMS Arts & Science College (Autonomous) Malappuram, Kerala on 28th June 2025(via Google meet) 11. 00 am onwards

GEMS Arts & Science college organized **FourteenthChairman's Lecture Series on 28th June 2025** via online mode. The program started with a welcome speech by Dr. Naveen Mohan, Principal, GEMS Arts and Science College. The Academic and

14th Chairman's Lecture Series

GEMS Research Centre in Association with Society of Biological Chemists - India, North East chapter

TOPIC :
"Bridging the Skill Gap"

" Higher Education Institutions play a critical role in transforming students into professionals with skill sets that meet the demands of academia, industry and society. The presentation will delineate the types of skills that are handy tools for our graduates. It will also propose a capacity building model that would foster just in time skilling as well as upskilling for a life long learning experience "

SPEAKER :

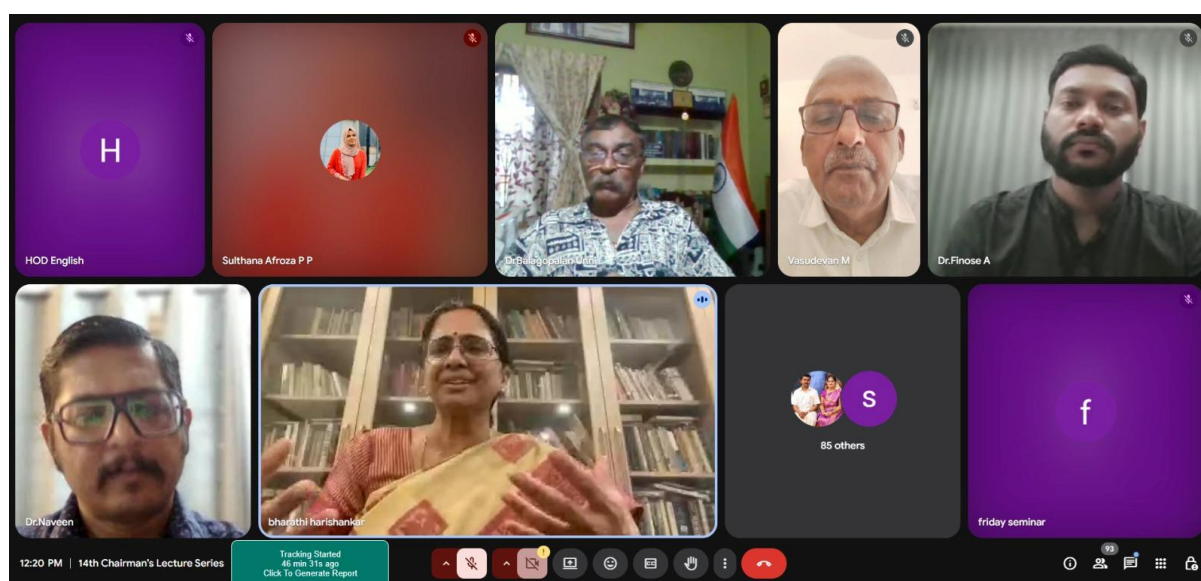


Prof Dr. Ms. V. Bharathi Harishankar FRSA (UK)
 Vice Chancellor
 Avinashilingam Institute for Home Science and Higher Education for Women (Deemed University)
 Coimbatore, Tamil Nadu

28 June 2025 11 am

GEMS THEATRE Hybrid Mode

GEMS ARTS AND SCIENCE COLLEGE (Autonomous)
 NAAC Accredited (First Cycle) A Grade | An ISO 9001: 2015 Certified Institution
 Ramapuram, Malappuram Kerala



Research Director, Dr. BG Unni spoke in brief about the origin of the chairman's lecture series and its importance to participants. He introduced briefly about the distinguished chief guest of the day, Prof. V. Bharathi Harishankar PhD, FRSA (UK), Vice Chancellor, Avinashilingam Institute for Home Science and Higher Education for Women (Deemed University), Coimbatore, Tamil Nadu. The topic of her lecture was on "Bridging the skill gap".

Prof. (Mrs) Bharathi began the session by giving an idea about the need for improving communication skills in students. She emphasized how language is used for communication, learning languages sometimes, just for communication alone. She pointed out the importance of content in communication and should combine skills and communication that should be reflected in a career. She also highlighted why Indian graduates fail in their domain during placements due to the lack of communication skills and how to compensate for the above. Besides communication skills, body language had an important role in communication. With the advancement of technology, various skills can be acquired through the internet and software. She cited an example like 20 years ago: she had undertaken a project involving internet access for elderly women in Tamil Nadu and conducted online programs for various sessions in telemedicine. Moreover, competency skills help to use particular skills in a creative and innovative manner, she mentioned. She shared the information that the university has adopted a policy to use various AI tools to use the existing skills in a competent manner. She inspired the participants by mentioning a story in which a tribal woman could speak different languages fluently even though she was not taught by anyone, her enthusiastic approach made to gain knowledge in her own way. The presentation delineated the types of skills such as domain based certifications, communication skills, soft skills and life skills that are now the handy tools for the present generation . The speaker also proposed a capacity building model that would foster just in time skilling as well as upskilling for a life long learning experience.

Vice Chairman and Dr. Naveen Mohan had a greater interaction with the speaker. Mr. Vasudevan Master, Vice Chairman, GEMS Arts and Science College gave felicitation to the program, and he addressed the gathering how the session was helpful to the participants. A brief concluding remark and the importance of her lecture as on today related to skills was summarized by Dr.BG Unni. The lecture was attended by the faculties of GEMS college ,as well as had a wide range of participation from other institutions and academic institutions . The Chairman's lecture series are always very much essential to

improve the quality of the academic level, and will also provide an opportunity for the faculties and students to interact with the experts from India and abroad to enrich their knowledge. The session ended with the vote of thanks by Dr. Finose A, IQAC Coordinator, GEMS Arts and Science College

Faculty Development Program : Seminar by the Faculties

Lecture series by the faculties of the college for the faculties are being regularly organized every two weeks intervals on Saturday. Our college has currently enrolled more than 80+ faculties comprising more than 14+ disciplines. All these faculties are encouraged to give lectures of their own choice on every Friday. The name of the faculties in order will be chosen based on lottery basis and each faculty selected in the order will be requested to prepare a topic in their area for presentation at the college on every Friday during lunch break. (The timing for each lecture will be for 25 minutes and 5 minutes for the interaction). The Best Speaker from 2 semesters will be evaluated based on the subject of the lecture, in depth knowledge in the subject, confidence of the speaker and how best the faculty is at the time of presentation and interaction amongst the audience. The whole process is being evaluated by a committee comprising of 4 members (one Subject - External subject Expert from a Government Institution/college or University nearby, Head of the respective department of the faculty, another non subject expert from the same college and the entire program will be coordinated by Director Academic & Research, in his absence it will be coordinated by Principal or vice principals of the college. The total score will be in 100 and divided under four sections such as (The novelty of the idea, Quality of the work/Slides and Presentation, In depth Knowledge of the subject and Ability in interaction/ Question Answer Session.) The best speaker among this (Two semester) will be selected based on the maximum scorer and honored /felicitated during the foundation day of the college every year. This program is going on since 2021.

Speaker: Shana Parveen TT

Assistant Professor ,PG Department of Microbiology ,GEMS Arts and Science College, Ramapuram ,

E-mail: parveen889@gmail.com , Mobile: 8891601668

TOPIC: HUMAN MICROBIOME AND HEALTH Date : 20-03-2024

Dr.ReshmiS ,

Assistant Professor ,PG Department of General Biotechnology ,GEMS Arts and Science College ,Ramapuram, Date: 16th August 2024

TOPIC: BIOPRINTING AND BIOINKS - A NEW PARADIGM FOR 3D ORGAN DEVELOPMENT

Arathy P Rajan ,
Head of the department and Assistant Professor, Department of Travel and Tourism Management ,GEMS Arts and Science College, Ramapuram ,Date: 3rd October 2024
EXPLORING DIVERSE FORMS OF TOURISM:A COMPREHENSIVE OVERVIEW

Ms. Resna N K ,
Assistant Professor and Head ,PG Department of Microbiology ,GEMS Arts and Science College
Ramapuram,Date: 25th October 2024
SUSTAINABLE BIOREMEDIATION TECHNIQUES

Mr. Naveen Krishna M ,
Assistant Professor ,PG Department of Applied Geology ,GEMS Arts and Science College ,Ramapuram,Date: 22nd November 2024
TOPIC: LATERITE - MORE THAN A BUILDING STONE

SARITHAA ,
Assistant Professor ,PG Department Commerce ,GEMS Arts and Science College ,Ramapuram
Date: 6TH DECEMBER 2024
FUNDAMENTAL CONCEPTS UNDER INCOME TAX ACT 1961 AND THE RESIDENTIAL STATUS

VIJAYESH BABU P ,
Assistant Professor ,PG Department of English Language and Literature ,GEMS Arts and Science College ,Ramapuram,05th February 2025
OBJECTIFICATION OF WOMEN, SEXUALIZATION AND STEREOTYPES IN ADS

Dr. SANDHYA BALAKRISHNAN P K ,
Assistant Professor & Head, Department of Computer Applications, GEMS Arts and Science College, Ramapuram,12th July 2025
TOPIC: OCR AND EDGE COMPUTING- EDGE OCR SOLUTIONS

Nimmi Ayyappan Parambil

Assistant Professor Department of Sociology GEMS Arts and Science

College(Autonomous),Ramapuram 26th July 2025

Topic - Tears of Tradition: A Feminist Analysis of Ceremonial Weeping as Women's Emotional Labour in Ritual Practice

Ms. ShibilaA

Assistant Professor PG Department of English Language and Literature GEMS Arts and Science College (Autonomous) Ramapuram Malappuram 9 th August 2025

Topic: Gendered Spectacles: Reading

Brief report on a meeting with officials of UCSI University Kuala Lumpur, Malaysia held on 14th August 2024 held at the Dean's office UCSI campus, Kuala Lumpur.

A special meeting was arranged in connection with International collaboration with GEMS Arts and Science College (University of Calicut) and UCSI University Kuala Lumpur



Meeting at Dean's office UCIS Campus, Kuala Lumpur

The following officials attended the meeting :-

Prof.Dr.Mogana S Rajagopal dean Department of Pharmaceuticals Biology,

Dr. Ravishankar Ram Mani Head of the Research ,

Dr.MohammedJuanaidFarrukh Head of the Praxis ,Industry And Community Engagement /Department of Clinical Pharmacy .

Prof.Dr. SaadTayyab Department of Pharmaceutical Science ,

**Dr.KushagraKhanna Department Pharmaceutical Technology and
Dr.BG Unni Director, Academic Research ,GEMS Arts and Science
CollegeMalappuram, Kerala India.**

The Dean explained in brief about the details of UCSI university – One of the world ranking Universities, and also discussed various activities undertaken by the Department of Pharmaceutical Science UCSI. She mentioned some of the points mentioned in the draft copy of MoU prepared by Director Academic and Research . The dean also introduced other officials attending the meeting to the Director, Academic & Research The Director Academic & Research explained briefly about the GEMS Arts & Science College and other Institutions represented by him ,and also explained the Research and Academic activities



Token of Appreciation to Director Academic & Research by the Officials of UCSI University after the meeting

undertaken by the Institution. The following main points were discussed as a part of collaboration between the two institutions on a long term basis such as the 1)Faculty exchange program. 2)Study Tour by the students. 3)Joint submission of collaborative projects and 4).Joint Organization of Seminar/Symposia/workshop. The officials attending the meeting were very happy to have a good collaboration with GEMS Arts and Science (University of Calicut) on a long term basis, and they also assured to Director Academic & research that all the support will be extended for the benefit of both the institution.

INTI International University Malaysia established an MoU with GEMS Arts & Science College, Malappuram



MoU signing meeting with NITI International University Malaysia on line

An MoU between **INTI International University Malaysia** with **GEMS Arts & Science College, Malappuram, Kerala** was signed today on **22nd April 2025** at the college premises. The important event attended by **Prof. Dr. ShamsulNaharAbdullah, Prof. Wong Ling Shing** (Pro Vice chancellors), Shri .



K KumeresanKrishnasamy ,Assistant Manager, International Relations and Collaborations Centre INTI University Malaysia and Shri Manjalamkuzhi Ali Chairman, Shri M. Vasudevan vice chairman, Dr. Balagopalan Unni, Director Academic & research , Dr. Naveen Mohan, Principal, Shri Mohammed Navas K Vice Principal , Dr. Finose IQAC coordinator Members of the board and other faculties of the GEMS college attended the online MoU signing meeting



Signing the MoU



college respectively at the meeting . . The programs and the activities to be undertaken by both the institutions are as follows : **Student mobility and visiting scholar programs; ,Academic programs collaborations; ,Joint publication and research activities; Exchange of academic materials and other information;(Genetic materials as per the rules of Government of India and the Government of Malaysia), Establishment of International Centre at their respective campus, Scholarly activities such as courses, seminars, trainings, conferences, and symposiums organized by either of the Parties** and other activities were in brief explained by the pro vice chancellor of the university, Malaysia. The term for partnership between the two institutions shall be for five (5) years from the date of signing the MOU. This is the first MoU GEMS Arts & Science college is signing with one of the world ranking universities of Malaysia. College is already

collaborating with another world ranking university, UCSI University Malaysia. Such collaboration with international universities will certainly improve the quality of the education system in both academic & research fronts at a very high level, and will also be benefitted to both the institutions, press release from the college mentioned ,

Invited and attended the International Meeting-48th Annual Conference of the Malaysian Society for Biochemistry & Molecular Biology (MSBMB) at Four Points by Sheraton Puchong, Selangor, Malaysia 14th & 15th August 2024



From the venue of the conference



Delivered the speech on “ Oral Cancer”at the conference

Dr.BalagopalanUnni ,Director Academic & Research , GEMS Arts & Science

College, Malappuram, Kerala (Former Chief Scientist of CSIR-NEIST Jorhat Assam) attended the “Cancer and Cellular Diseases” Section of the Malaysian Society of Biochemistry & Molecular Biology held at Four Points by Sheraton Puchong, Selangor, Malaysia on August 14th&15th, 2024. Dr.Unni presented his research work entitled “Oral Cancer” in the Session “Cancer & Cellular Diseases” at the MSBMB conference

Publications 2024-2025

1) Shila Kumari Singh, Minakshi Bhattacharjee, Balagopalan Unni, Rajpal Singh Kashyap, Abdul Malik, Suhail Akhtar and Sabiha Fatima (2024) In silico testing to identify compounds that inhibit ClfA and ClfB binding to the host for the formulation of future drugs against Staphylococcus aureus colonization and infection. Frontiers in Cellular and Infection Microbiology. 10.3389/fcimb.2024.1422500 pp 01-08

Anas Tharakan (2024) ‘Unveiling Divorce Trends in Kerala: Inferences from Family Courts’-South India Journal of Social Sciences. Vol. 22 No. 2 June

Nayana P and Balagopalan Unni (2024). Nanofertilizers in Agriculture: An efficient nutrient delivery system. Society of Biological Chemists (India)- Newsletter, 117: p17.

Shila Kumari Singh Minakshi Bhattacharjee, Balagopalan Unni, Rajpal Singh Kashyap (2024) Detection of Antibiotic Resistance and Biofilm Producing Ability of Staphylococcus Species in Clinical Isolates, National Academy of Medical Sciences, DOI <https://doi.org/10.1055/s-0043-1768461>. ISSN 0379-038X.

Shilakumari Singha, Minakshi Bhattacharjee, Balagopalan Unni and Rajpal Singh Kashyap (2024) Role of surface adhesin proteins of Staphylococcus aureus in virulence and its clinical significances: a review -Reviews and Research in Medical Microbiology 2024, 35:000–000

Sija, S. L., Reshmi, S. and Athira, T. S (2024). Phytochemical screening and pharmacological evaluation of Nymphaeapubescens Willd: An aquatic plant resource for drug development, Pariplex – Indian Journal of Research, Vol. 13: 05

Reshmi. S and Balagopalan Unni (2024) Hairy Root Culture Technology - An efficient alternative for large scale production of high value secondary metabolites, Society of Biological Chemists SBC (1) newsletter Vol: 117 page 15-17.

Siji Mol K and Balagopalan Unni (2024) Secondary metabolites: A therapeutic source from plants. Society of Biological Chemists India (SBC (I)) Newsletter. Vol. No: 117

GenBank Accession Numbers (Deposted IMTECH)

Kadambodan, A., Malayanakath, F., Kinatingalthodi, S. and Parambayil, Nayana. (2024) Prokaryotic 16S rRNA/ *Corynebacteriumfalsenii* BIQ A1, 16 S rRNA gene sequence (Accession Number: PP527011)

Kinatingalthodi, S., Kadambodan, A., Malayanakath, F. and Parambayil, Nayana (2024). *Bacillus haynesii* strain VOV C1 16S ribosomal RNA gene, partial sequence (Accession Number: PP527022).

Kadambodan, A., Malayanakath, F., Kinatingalthodi, S. and Parambayil, Nayana.(2024) *Corynebacteriumfalsenii* strain VOV D2 16S ribosomal RNA gene, partial sequence. (Accession number: PP527023)

Malayanakath, F., Kinatingalthodi, S., Kadambodan, A. and Parambayil, Nayana (2024). *Staphylococcus haemolyticus* strain VOV B2 16S ribosomal RNA gene, partial sequence. (Accession Number: PP527024)

Research paper with highest Citation from 2019-2023

Sudip Some, OnurBulut, Kinkar Biswas, Anoop Kumar, Anupam Roy, Ipsita Kumar• Sen, Amitava Manda, Octavio L. Franco, İkbālAgahİnce , KartikNeog, Sandip Das, Sayantan Pradhan, Subhadeep Dutta, DebjoyBhattacharjya, SoumenSaha, Pradeep K. Das Mohapatra, Anil Bhuimali, B. G. Unni, Ahmet Kati, Amit Kumar Mandal, M. Deniz Yilmaz & İsmail Ocsoy (2019) Effect of feed supplementation with biosynthesized silver nanoparticles using leaf extract of *Morusindica* L. V1 on *Bombyxmori* L. (Lepidoptera: Bombycidae). **SCIENTIFIC REPORTS (2019) 9:14839 , October 2019.**

Impact factor. :4.30 Citation Scopus 84, Citation Web of Science :84 Number of Citations :118

Patent Applications Filed/Accepted/Published/Granted by NRDC, DSIR, Govt of India

Sl. No	Title of the Patent	Name of the Authors /Inventors	Status of the Patent
1	A process for rapid biodegradation of polyethylene by <i>Streptomyces</i> isolated from garbage soil.	Usha&Dr.Naveen Mohan	Granted (Patent No: 384196)

2	Single Cell Protein and its process of preparation	Dr.Nayana .P, Ashfena C & Dr. BalagopalanUnni.	Published. (Patent Application No: 202341058836)
3	Nano fertilizer composition and its process of preparation.	Dr. Nayana .P, Safeeda.K& Dr. BalagopalanUnni	Published. (Patent Application No: 202341058794)
4	Low cost Nutrient dense multigrain weaning formulation.	Daisy Sharma, ManashPratimSarma , NanamRonya, Dr.BalagopalanUnni&Chandana Choudhury Barua.	Accepted. (Patent Application No: 202231014874)
5	Smart Biometric eye to overcome blindness.	AnkurpanSaikia, SunandanBaruah , Dr.BalagopalanUnni, Taraprasad Das, AnanyaKalita, Rajeev Kumar Pappurru.	Accepted. (Patent Application No: 202231068097)
6	Leafy SmbbleJelly .	Malavika .K, Agnes E.J, Ranjusha V.P, Dr. BalagopalanUnni.	Accepted.
7	Purification of Phytase from <i>Trigonellafoenumgraecum</i> characterization and its application on decolorization and breed making.	Dr.Nayana. P, Raheena Sheena & Dr. BalagopalanUnni.	Accepted.
8	Production of Fish feed using single cell protein derived from fruit peel wastes of <i>Artocarpusaltilis</i> , <i>Passifloraedulis</i> ,and <i>Ficuscarica</i> .	Dr.Nayana.P, Ms.AyishaNesrin, Ms.LubnaJubin&Dr.BalagopalanUnni.	Application Filed
9	Development of aquafeed using single cell protein derived from vegetable peel wastes of <i>Cucurbita moschata</i> , <i>Benincasahispida</i> , and <i>Lagenariasiceraria</i> .	Dr.Nayana.P,Ms.Lubna Jubin , Ms.AyishaNesrin&Dr.BalagopalanUnni.	Application Filed
10	Fit –Blend Tea.	Ms.Ranjusha V.P, Ms.Agnes E.J, Ms.Malavika .K &Dr.BalagopalanUnni.	Application Filed

ICAR-Indian Institute of Spices Research (ICAR-IISR), Kozhikode established an MoU with GEMS Arts & Science College (Autonomous), Malappuram

Dr.R.Dinesh Director, Dr.T.E. Sheeja Principal scientist, Dr.Ishwara Bhat, Principal Scientist & Dr.R.Sivaranjani Scientist from ICAR-IISR Kozhikode ,Mr. M.Vasudevan Vice Chairman, , Dr.Balagopalan Unni Director, Academic & research and Dr.Naveen Mohan Principal of the GEMS Arts & Science College attended the meeting, and signed the MoU on 6th August 2025 at ICAR-IISR- Kozhikode



MoU signed between ICAR-IISR and GEMS Arts & Science College (Autonomous)

The programs and the activities to be undertaken by both the institutions are as follows :Student mobility and mini project and short term training programs; ,Academic programs collaborations; ,Joint publication and research activities; Scholarly activities such as courses, seminars, trainings, conferences, and symposiums jointly organized by either of the Parties and other activities and programs as may be mutually agreed upon by the Parties. The term for partnership between the two institutions shall be for five (5) years from the date of signing the MOU. GEMS Arts & Science college has signed quite a number of MoU between the R&D institutions and Universities within India and International so far .Such collaboration with the institutions & universities certainly improve the quality of the education system in both academic & research fronts at a very high level, and that is the ultimate goal , informed by the Director, Academic & Research in the press release

Online meeting arranged by the UCSI University Malaysia along with the Faculties of GEMS Arts & Science College(Autonomous) on 9th September 2025

The online meeting was arranged by **Prof. Por Choo Shiuan Deputy Dean Chair, Quality Assurance and Enhancement Department of Clinical Pharmacy Faculty of Pharmaceutical Sciences UCSI University Kuala Lumpur** along with the faculties of GEMS Arts & Science college . The meeting was held at the IQAC office. The main



On line with the officials of UCSI University Malaysia

purpose of the meeting was to finalize the schedule of classes and the subjects for online teaching for the faculties of GEMS Arts & Science college in the coming semester, and also decided to communicate the time schedule to our college by the UCSI university. They may also issue a visiting professor status to our faculties who will be teaching the students of UCSI university. In addition to this other points such as the students' mutual visits and joint collaborative projects and probable funding etc were also raised at the meeting by Dr.BG Unni , Director Academic & research. In addition to Director Academic Research, Dr.Finose, Asst Professor & Director IQAC, Dr.Sijimol, Dr.Nayana Asst Professors, MsHaritha Coordinating the international program were also at the meeting. Dr.Naveen Mohan , Principal of the college who is also the one of the visiting faculty in the area of Microbiology could not attend the meeting. However his schedule for the classes will also be finalized by the Deputy Dean, UCSI University. The online meeting ended with an appreciation note by Director Academic & Research to Prof.Por Choo for his keen interest in collaboration with GEMS College. The online meeting was very useful for finalizing the work schedule very easily

Dr.BswlagopalanUnni
Director Academic & Research

25th June 2026