



BMU
BML Munjal University



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AVANT GARDE

Bulletin

School of Engineering & Technology



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Avant Garde

in Spirit

"Avant-Garde" perfectly encapsulates the spirit and vision of the School of Engineering & Technology at BML Munjal University. In the realm of art and innovation, the term "Avant-Garde" represents those who push boundaries, challenge norms, and pioneer new ideas. This newsletter serves as a testament to the innovative projects, groundbreaking research, and cutting-edge developments in the School of Engineering & Technology. Through this publication, we aim to highlight the bold strides our faculty and students have made in engineering, reflecting our commitment to staying at the forefront of technological and academic advancements.

Dean's Message



Prof. (Dr.) ManEEK Kumar
Dean- School of Engineering
& Technolgy

I am delighted to introduce our Bulletin "Avant-Garde," designed to bring you closer to the exciting world of the School of Engineering and Technology (SoET) at BML Munjal University. The primary aim of this compendium is to engage and inspire by sharing the remarkable achievements and transformative initiatives taken by the school.

In the year gone by the school has made immense progress in all spheres, be it redesigning the B. Tech curriculum or our students' winning technical competitions and hackathons or the faculty showing the way by quality research publishing. As we eagerly witness and participate in the transformation of our students into accomplished professionals, their success stories and milestones achieved during their time at the university and beyond fill our hearts with immense pride. Our dedicated faculty are at the forefront of discoveries that impact industries and society, as they dive into the realms of cutting-edge research that is shaping the future of business

SoET is a beacon of innovation and industry integration, dedicated to nurturing bright minds and shaping them into future leaders. As we look to the future, SoET is poised to continue its journey of excellence. We are committed to advancing technologies such as Electric Vehicle Technology (EVT), Cyber Security, and Generative AI, ensuring that our students remain at the forefront of innovation.

As dedicated educational partners, we remain steadfast in our commitment to nurture BMU's dynamic ecosystem. We continuously develop and deliver innovative programs that benefit our students and offer valuable resources to the community.

I am sure this treasure trove of inspiring stories highlighting the exceptional journeys of our students, faculty, and alumni would be worth reading. Their triumphs and innovations embody the true spirit of our community.

Thank you once again for embarking on this exciting journey with us.

Achievements & Accolades

QS I-GAUGE 'Platinum Engineering' Rating



SoET has reached a significant milestone by earning the esteemed QS I-GAUGE 'Platinum Engineering' rating.

The award was presented at an event in Indore on 27th June 2024, by Dr. Rajendra Singh, the renowned conservationist known as the "Waterman of India," for his groundbreaking work in water conservation and revitalization in Rajasthan. Dr. Himanshu Rai, Director of IIM Indore also attended the event, adding to its significance.

QS I-GAUGE is a highly regarded rating system developed by Quacquarelli Symonds (QS), a global leader in education rankings. It is tailored for Indian higher education institutions and provides a detailed framework to evaluate and benchmark their performance. It serves as a vital tool for institutions striving for excellence in education, providing a structured pathway for growth and global competitiveness while

addressing the unique needs of India's higher education system.

This accolade reflects the collective dedication and hard work of the entire SoET and BMU team. The Internal Quality Assurance Cell (IQAC) played a pivotal role in driving this initiative, and their efforts have been instrumental in achieving this recognition.

This recognition empowers BMU graduates, equipping them to thrive in a competitive global landscape and affirming the university's status as a beacon of excellence in engineering education.

Special thanks are due to Mr. Ravin Nair, Head of Business and Operations at QS I-GAUGE, and Mr. Cyril Benz, Associate Director at QS I-GAUGE, whose unwavering commitment to promote quality and excellence in Indian education resonates with BMU's vision.

BMU Engineers Triumph at 14th National EFFICYCLE 2024

The roar of engines and the thrill of innovation filled the air as our Mechanical and Computer Science Engineering students excelled in the "Effi-Que/Effi-Que ADAS" category at the 14th National EFFICYCLE 2024, hosted by Lovely Professional University, Jalandhar, from January 24-28, 2024.

The event, organized by SAE Northern India Section (SAE NIS), and sponsored by Maruti Suzuki and Siemens, saw our team's innovative vehicle make a lasting impact. The student team led by Yogesh Soni and Raghav Mittal, with Saptarshi Goswami, Vishav Garg, and Supriya Sasidharan, designed a fuel-efficient vehicle that passed all technical inspections and tests—an achievement unmatched by any other team. The vehicle won Best Vehicle Aesthetics, earning a

prize of INR 15,000, and team member Supriya S received the Best Female Participant award.

With immense pride, BMU celebrates Supriya Sasidharan, a BTech-Mechanical Engineering student, for receiving the prestigious Kalpana Chawla Award 2023-24, instituted by Trim India and presented by the SAEINDIA Foundation.

This esteemed recognition, inspired by the legacy of astronaut Kalpana Chawla, honors women engineering students who demonstrate exceptional academic excellence and active participation in SAEINDIA initiatives.

We applaud Supriya's remarkable achievements and her unwavering dedication to becoming a catalyst for the future.



FIHAB competition at IIT, Bombay

Team Highflyers comprising Krish Verma, Yogesh Verma, Raghav Mittal and Saptarishi Goswami, participated in a pre-conference competition on Flameless Indoor Hot Air Balloon FIHAB-2024 competition held at IIT, Bombay on 26th June 2024 and won 2nd prize in the competition.

Best Paper Presentation Awards



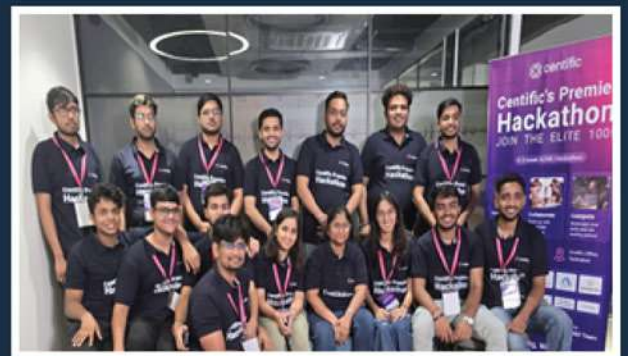
Dr. Atul Mishra, Assistant Professor attended the "International Conference on Computational Intelligence and Network Systems (CINS 2023)" at BITS Pilani Dubai Campus held from 18th to 20th December 2023. He received Best Paper Presentation Award for his paper on "A Data-driven Approach to Predicting optimal Business Locations in Urban Centre".

Dr. Kiran Sharma, Assistant Professor attended the "International Confluence Conference on Start Ups and Innovations held at IIT Madras, 2023. She along with her team received the Best Paper Presentation Award with a cash prize of Rs 10,000 on "Entrepreneurial Intention (Ei) And the Role of Entrepreneurship Education (Ee): The Indian Context".



Darshika Sanjay Khone, PhD Scholar, attended the "International Conference on Oxide Electronics at Busan, South Korea, October, 15th- 18th 2023. She received the Best Paper Presentation Award with 1 lack KRW as a cash prize for presenting paper on "Effect of Electrode Area on Resistive Switching Behaviour in Tantalum Oxide-based Memory Devices".

BMU students participated in Centific Hackathon 2024 titled "Join The Elite 100", held from Sept. 6-22, 2024 and won awards under various categories. Ayush Agarwal and Ashi Jain secured top spot and were awarded with MacBooks for their project featuring AI-enabled AIOps solution using Databricks Mosaic AI. Amit Pratap Singh, Vishav Garg and Kriti Banka secured first runners-up, were awarded with iPhone 15s. Sankalp Mane received the Best Contributor Award.



BMU students (under Robotics Club) participated in SINUSOID - NIITFest 2024 at NIIT University, Neemrana on the 9th of Nov 2024 and won various awards. 1st place in Robo Race secured by Ishika Kochhar, Saksham Pandla, Anirudh Dattu and Yuvraj Arora, 1st place in Robo Soccer secured by Saksham Pandla, Yuvraj Arora, Ravindra Reddy and Ishika Kochhar, 1st place in Startup-Summit secured by Ishika Kochhar and Saksham Pandla mentored by Dr. Hirdesh Pharasi and Dr. Sandeep Kumar. Shreyansh Tripathi, Rohit, Harshita Rupani and Deepanshu Aggarwal, Radhika Bhati, Ananya Srivastava secured 1st and 2nd positions in Tectacular mentored by Dr. Nirupama M P.

Bridges of Brilliance

C2S Programme of MEITY

BML Munjal University is one of the selected academic institutions to have access to EDA tools by MEITY dated 11th September 2024. EDA (Synopsys and Cadence) tools provided by the ChipIN Centre under C2S Programme are fully functional and will be utilized for teaching, instruction & research purposes by all faculty members, students & researchers at B.Tech., PhD levels and professionals/engineers. These tools will help students to be industry ready for semiconductor industry mainly in area of VLSI and Embedded System Design and leapfrog in ESDM space by way of inculcating the culture of System-on-Chip (SoC)/ System Level Design.

Centre of Excellence - Artificial Intelligence and Cybersecurity

The process for establishing the Centre of Artificial Intelligence and Cybersecurity started with the setting up of the Cyber Security Advisory Board comprising distinguished members from reputed institutions in India and abroad. The collaboration is ongoing with Prof. Shishir Nagaraja from Newcastle University, UK. Discussions are ongoing about setting up an AI Lab. The proposed Centre for Artificial Intelligence and Cyber Security is dedicated to advancing the frontiers of technology and ensuring a secure digital future by integrating cutting-edge research, comprehensive education, and dynamic industry collaboration.

Course for Working Industry Professionals approved by DGHE

B. Tech for Working Professionals is an opportunity to acquire technical expertise after completing diploma programmes and offers an opportunity for diploma holders to obtain B.Tech Degree in Engineering while working.

MOUs

1. OMV/South Asian Women in Technology (SAWiT) dated 4th March 2024.

This collaboration with SAWiT brings a proactive approach to support women graduating with STEM degrees. With AI-driven personalized feedback on job opportunities, and exclusive upskilling deals, this partnership offers a comprehensive support system for career growth and development.

2. MGM India Private Limited dated 19th January 2024.

This partnership involves comprehensive training sessions conducted by MG Motors trainers, aimed at empowering faculty members with in-depth knowledge of E-mobility and cutting-edge electric vehicle technologies. The initiative also facilitates the creation of specialized courses fostering innovation and skill development in emerging fields.

Radiance Rendezvous

Joy of Engineering Project Exhibition- Making Engineering Fun and Impactful

This project exhibition held on May 9, 2024 showcased the innovative work of more than 400 first year B.Tech. students from SoET. Students received valuable feedback from faculty and seniors. 104 groups presented their prototypes, each designed to address real world problems.



Innovation Day 2024: A Showcase of Creativity and Excellence

The innovation day held in May 2024 spotlighted the remarkable talent of our second year B.Tech Students from CSE, ECOM and ME programmes. The event was mentored by Prof. Deepak Pandit, Prof. Deepika Dixit, Prof. Amiya Dash, and Prof. Nirupama.

A special highlight of the day was the address by esteemed chief guest, Mr. George Goh Ching Wah, Distinguished Entrepreneur and Philanthropist. The presence of over 300 participating students highlighted the strong interest in innovation within our academic community.



Symposium on Smart Manufacturing Readiness in Auto Sector SMEs

SoET successfully concluded the Symposium on Smart Manufacturing Readiness in Auto Sector SMEs in India, 2023. The event was meticulously organized by Dr. Maheshwar Dwivedy, Department of Mechanical Engineering at SRM-AP University, Dr. Deepak Pandit, Institute of Innovation and Entrepreneurship at BMU's School of Management, and Dr. Kiran Khatter, Professor at SoET, BMU. The symposium was a key component of their ICSSR-funded project titled "Assessment of Smart Manufacturing Readiness of Auto Sector SMEs in India".



Symposium on Empowering Diversity: An Empirical Exploration of Queer Entrepreneurship in India



The workshop was conducted on March 18, 2024, as a part of the ICSSR-funded short-term empirical project on "Empowering Diversity: An Empirical Exploration of Queer Entrepreneurship in India", which contributed to realizing the goal of fostering queer entrepreneurship in India both in intent and praxis. The workshop was organized by Prof. Ziya Uddin and Dr. Kiran Sharma. Queer Entrepreneurship in India is slowly gaining traction with supportive social, legal and policy frameworks like StartUp India policy, to create a diverse and inclusive business ecosystem.

RIHAB: Workshop cum Competition

The workshop was conducted on April 29-30, 2024. The training session was conducted by Dr. Rajkumar S. Pant, Professor of Aerospace Engineering at the Indian Institute of Technology (IIT) Bombay, with a focus on the design and development of Lighter-Than-Air (LTA) systems. A prize giving ceremony was conducted to reward the winning teams of the competition. The workshop was convened by Dr. Amiya Kumar Dash, with support from Student and Staff Coordinators Mr. Amit Gautam, Mr. Tirath Solanki (Lab Staff, Mechanical Engineering) and Yogesh Soni (3rd year Mechanical Student).



World EV Day Celebration

The EV initiative at BMU was led by SoET on September 11, 2024 for future EVT Aspirants. As part of this collaboration, JSW MG Motor India presented the MG Hector, India's first internet SUV under the MG Nurture program. MG Nurture is a comprehensive program designed to empower students and bridge the industry-academia gap in India. Collaborating with over 40 colleges, the program equips students with the technical skills needed to excel in the dynamic automotive sector. Ms. Pooja Salwan, Mr. Shwetank Tandon, Dr. Amiya Dash, Dr. Ranbir Singh, Dr. Anubhav Agrawal and Dr. Kiran Khatter coordinated the event.



National Symposium on Complex Dynamical Systems and Applications



The symposium was conducted on 8th Nov. 2024. The event was organized by Dr. Ranjib Banerjee, Prof. Ziya Uddin, Dr. Rishi Asthana, Dr. Himanshu Upreti and Dr. Aradhana Narang. The objective of symposium was to understand the dynamical behavior of complex systems found in physical, engineering, physiological and biological systems. Distinguished speakers from renowned Indian institutions such as IITs, IISERs, and ISI delivered talks on the theme of the symposium.

Symposium on Computational Science and Scientometrics

A symposium was organized on Computational Science and Scientometrics on May 3, 2024. Esteemed speakers from CSIR-NIScPR, AcSIR, DST, University of Delhi delivered talks on the theme of the symposium. Prof. Ziya Uddin and Dr. Kiran Sharma organized this symposium.



Innovation Day 2.0: A Grand Celebration of Creativity and Problem-Solving

B.Tech 2024 batch showcased their design thinking project Proof of Concepts (POCs) on 27th Nov. 2024. 120+ POCs were evaluated by 30 jury members, that included 8 external jury members and 22 internal jury members. The chief guest Mr. Rakesh Pati, Senior Manager, MSME Technology Centre Bhiwadi, inspired students with his insightful words and unwavering support for innovation and entrepreneurship. The event was mentored by Dr. Nirupama M P and Prof. Kulbir Lamba.



TechStorm Hackathon: Igniting Innovation



On August 24th and 25th, 2024 TECHSTORM Hackathon was conducted. The event kicked off with inspiring talks by our esteemed alumni, Mr. Manav Gupta (B.Tech CSC, 2015-19) and Mr. Naman Khetawat (B.Tech CSC, 2015-19), fueling the participants' drive to innovate. A total of 78 teams registered, 56 teams made it to the check-in, and 36 teams wowed us with their final presentations.

Smart India Hackathon– 2024

The Smart India Hackathon (SIH) 2024 Internal Round held at BMU, was an exciting and dynamic event aimed at identifying innovative solutions to real-world problems while fostering a spirit of collaboration and creativity among students. The internal round was structured as a 24-hour non-stop coding and brainstorming session. Faculty SPOC was Dr. Pramod Kr. Maurya and the pool of jury members consisted of industry experts and BMU faculty.



Innovating Tomorrow- 1st Smart Mobility Hackathon, Hyderabad Chapter

SoET in collaboration with PAGE Junior College, Hitech City, Hyderabad, proudly organized the 1st Smart Mobility Hackathon - Hyderabad Chapter in April 2024. The hackathon was coordinated by Dr. Rishi Asthana. The event was judged by Dr. Ranbir Singh, Dr. Amiya Kumar Dash, Dr. Neeraj Kumar Sharma, Dr. Anubhav Agrawal, and Dr. Nirupama MP from BMU, along with Mr. Ashish Nyasavajjula and Ms. Swati Bhimte from PAGE Junior College. The event also received support from Ms. Anuraga Rudraraju, Principal of PAGE Junior College, Hitech Branch.



Mentorship Session and Campus Tour



Mentorship sessions and campus tour were hosted on 6th Nov 2024 for the Ryan International School, Faridabad students of classes IX-XII as part of their school internship program in Artificial Intelligence and Robotics. The sessions were conducted by Prof. Anantha Rao and Dr. Ranbir Singh respectively. Visiting students were reconnected with school alumnus, Saransh, 1st yr CSE.

Empowering Future Generations

On August 1-3, 2024, Prof. (Dr.) ManEEK Kumar Dean, SoET, BMU delivered back-to-back expert sessions on 'Empowering your Career's Future' with the students at PAGE Jr. College branches, Hyderabad.



Visit of K.R. Mangalam University students at CAMD



The Centre for Advanced Materials and Devices (CAMD) on 4th Dec. 2024 hosted a group of B.Sc. (Physics) students accompanied by their faculty members from K.R. Mangalam University. The event was headed by Dr. Vishal Baloria, Assistant Professor, SoET.

Inspiring Young Minds Joy of Engineering

On 5th December 2024, Prof. (Dr.) Maneeq Kumar Dean, SoET, BMU conducted an expert session on Joy of Engineering for the senior students of Page Jr. College, Hyderabad.



SyncHack 2024 AI powered IOT battle



SyncHack 2024 was hosted on 6th Dec 2024 by SoET at BMU. The event highlighted the next generation of tech leaders, with students from Grade 9 onwards presenting their innovative models as proof of concept. It was coordinated by Ms. Monika Garg, Flt. Lft. (Rtd.) Nitin Prakash Agrawal, Dr. Ranbir Singh and Jury members were Dr. Rishi Asthana, Dr. Neeraj Sharma, Dr. Pooja Choudhary, Dr. Amiya Kumar Dash, Dr. Ashok Kumar Suhag, Dr. Atul Mishra and Dr. Meenakshi Malik.

Alumni Interaction Series: Workshop on Game Development

On November 11, 2024, the Student Alumni Relations Cell (SARC) and SoET organized a Game Development Workshop as part of the Alumni Interaction Series. The event was led by BMU alumnus Shreyansh Anchlia, a Senior Software Development Engineer (SDE-III) specializing in Unity Development at Jio Tesseract.



BMU IEEE Student Branch Council (AY 2024-2025)



The BMU IEEE Student Branch proudly announced the formation of the New Council for the Academic Year 2024-2025 dated 12th Nov, 2024. The student council comprises of Bhomik Tomar, Phani Harshith Kotturu, Divya Yadav, Mohak Gupta and Suhani Aggarwal. This dynamic team of student leaders is poised to drive innovation, collaboration, and technological excellence while fostering professional development within the IEEE community.

Voyages of Discovery

10th International Council for Industrial and Applied Mathematics



The 10th International Congress on Industrial and Applied Mathematics (ICIAM 2024) was held in Tokyo, Japan during August 20-25. BMU made a significant impact at ICIAM-2024. Three pioneering research papers were presented. The first paper titled "Boundary Layer Preconditioner for Elliptic Problems in Two Dimensions" was authored by Dr. Aliya Kazmi, Dr. Akhlaq Husain, Prof. Ziya Uddin. The second paper "AI-Based Numerical Technique to Solve Fluid Flow Problems" was authored by Ms. Sai Ganga, Prof. Ziya Uddin, Dr. Rishi Asthana and the third paper "Metaheuristic Based Numerical Solution and Statistical Optimization of Heat Transfer through

Rotating Heat Pipe" was authored by Prof. Ziya Uddin, Dr. Hamdy Hassan, Dr. Souad Harmand, Dr. Wubshet Ibrahim. The SERB provided support to Ms. Sai Ganga under International Travel Support (ITS) Scheme.

16th International Conference on Computer and Automation Engineering

Prof. Kiran Khatter along with BTech (CSE) students Harshita Nauhwar, Twisha Khurana, and Aishwarya Perukari, presented their research paper titled "Unveiling Patterns in Financial Data through Time-Series Forecasting and Portfolio Optimization" at the 16th International Conference on Computer and Automation Engineering (ICCAE24) in Melbourne, Australia, March 14-19, 2024. Additionally, Prof. Khatter served as a session chair at ICCAE24, highlighting the team's substantial contribution to the conference.



VISIT: U.S. STEM Institutions



On 16th September 2024, BMU hosted an esteemed delegation of representatives from prominent U.S. STEM institutions, including Boston University CAS, Columbia Engineering, George Washington Engineering, LMU Engineering, and NYU-Tandon. The visit marked an important step towards fostering international academic collaborations, focusing on exchange opportunities, joint research initiatives, and fostering global learning environments. This visit was sponsored by Seed Foundation, Mumbai.

NVIDIA AI Summit 2024

Dr. Devanjali Relan, Dr. Kiran Khattar, Dr. Soharab Hossain Shaikh, and Dr. Manisha Saini attended the NVIDIA AI Summit 2024 at the Jio World Convention Centre in Mumbai from October 23rd to 25th, 2024. This event showcased the latest advancements in AI, featuring over 50 sessions, live demos, workshops, and keynotes led by industry leaders.



Siemens Visit for Potential Collaboration



Siemens visited BMU on 8th November 2024, for potential collaborations. This partnership aims to open opportunities for students through internships and joint project work. The initiative and efforts were spearheaded by Dr. Devanjali and coordinated by Dr. Ranbir, and Dr. Anubhav, Dr. Amiya Kumar Dash, Dr. Abhishek Jain, Dr. Sandeep Kumar, Dr. Pooja Choudhary, Dr. Srikanth K and Dr. Pramod Kumar Maurya also participated in meeting. The Siemens Energy team was led by Dr Rishi Relan along with 4 of his colleagues.

International Conference on Applied AI and Scientific Machine Learning

Prof. Ziya Uddin, Dr. Himanshu Upreti, PhD Scholars Ms. Sai Ganga and Mohd. Vaseem, presented four research papers at the International Conference on Applied AI and Scientific Machine Learning (CASML 2024) held (14-18 Dec, 2024) at IISc, Bangalore. The research focused on AI-driven solutions to complex mathematical problems with diverse engineering applications.



Visit To Metalman Micro Turners, Dharuhera



Dr. Amiya Das with students Kanika Sharma and Abhimanyu Gulati had the privilege of visiting Metalman Micro Turners (MMT) in Dharuhera who are dedicated in making technology for visually impaired people to make them inclusive in society. They had the opportunity to witness firsthand the remarkable dedication of their employees, Arjun Shah and Ravinder Singh, who are visually impaired.

Anveshan : IIT Delhi

Dr. Sanmitra Barman with 37 SoET 1st year students participated in "Anveshan: UG engagement series-an intellectually stimulating lecture series crafted for undergraduate students passionate about science, technology and innovation" on October 26, 2024, at IIT Delhi.



Innovative Healthcare Solution

Akshita Jain, Manya Agarwal, Harsh Soni, and Buchamchetty Dhanush Kumar—recently made a mark at a hackathon hosted by K.R. Mangalam University on March 5, 2024. Competing under the team name "Lunatic Hackerz," they developed an innovative website concept aimed at empowering users with reliable information about medications.



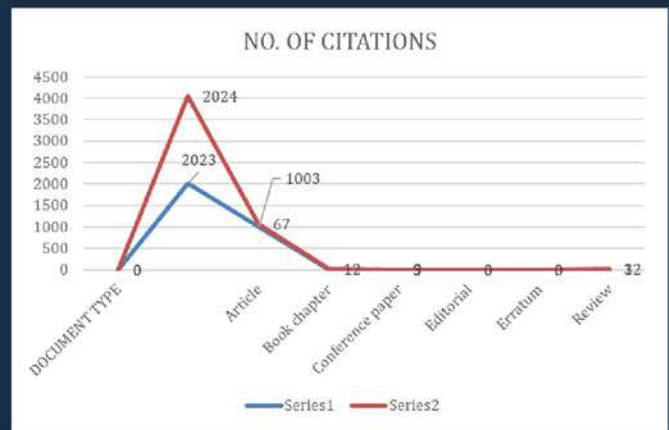
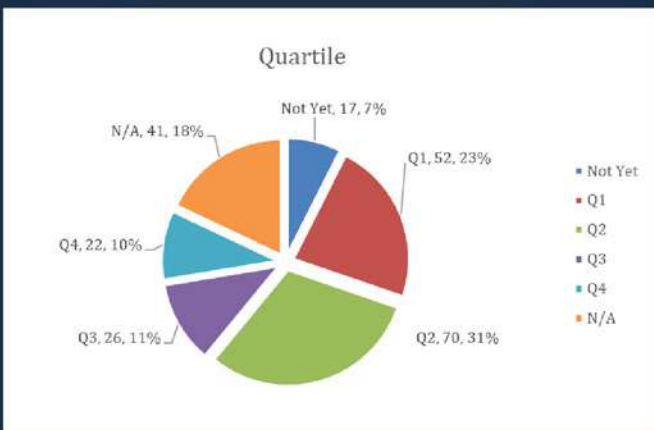
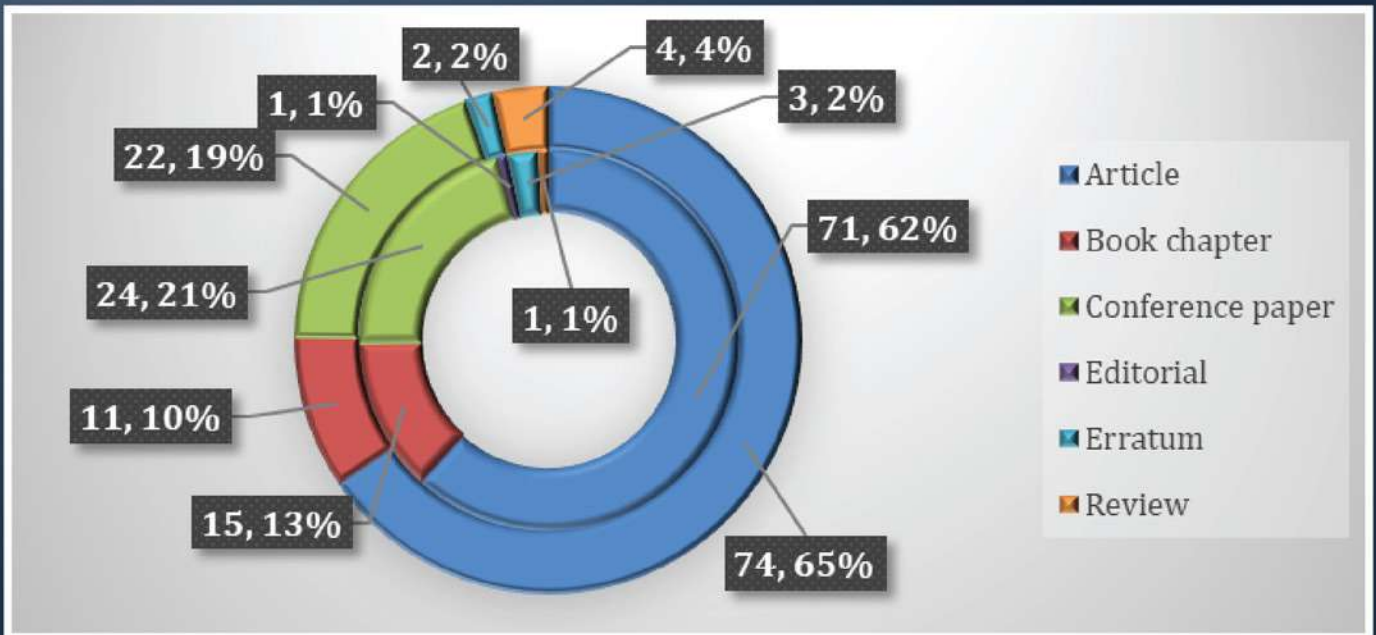
- Dr. Ranbir Singh and Dr Anubhav Agrawal attended the SAEINDIA's Professional Development Program on "Electric Vehicle Development" from 21-23 March 2024 at Global Automotive Research Centre (GARC), Chennai.
- Dr. Shakti Kundu delivered a talk in the International Conference on Advanced Communication, Energy and Big Data on 16th March 2024 in GH Rasoni Institute of Engg and Tech Nagpur.
- Dr. Anubhav Agrawal and Dr. Atul Mishra conducted expert session on AI and the Future of Education at Paratap World School, 11th May 2024.
- Dr. Pooja Choudhary attended a 6-Day Workshop on "IOT enabled Robotics System" from 4th May to 9th May 2024 at Centre IOT and ESDM, SR University, Warangal.
- Dr. Aradhana Narang attended a one-week Faculty Development Programme on "Exploring Research Frontiers in Dynamical Systems" organized by Department of Mathematics Jointly with School of Emerging Sciences & Technology, Gujarat University, Gujarat from May 20 to May 24, 2024.
- Summer School: An outreach activity where SoET faculty members delivered expert sessions on a range of topics, including Robotics & Automation, D2S - Chip Design to Fabrication, Cybersecurity, Electric Vehicle Technology, Joy of Engineering, and Data Science, from June 2nd to June 6th, 2024, at the BMU campus.
- Under IC3 Pre Forum and Regional Forum, Dr. Ranbir Singh, Dr. Anubhav Agrawal conducted expert sessions at schools in Kolkata from 5-6th July 2024.
- Dr. Aradhana Narang delivered an invited lecture on the topic "Game theory and its evolutionary aspect" in a one-week Faculty Development Programme on "Recent Advances in Optimization: Theory and Practices" held at Jaypee Institute of Information Technology Noida from July 15 to July 20, 2024.
- Dr. Vishal Baloria presented at the 9th GOSPEL workshop on Gas sensors based on semiconducting metal oxides: novel materials & mechanism analyses & application fields (GOSPEL-2024), which was held at the Jilin University, China from August 4-6, 2024.
- Dr. Shakti Kundu attended a one-week Faculty Development Programme on "Innovative Curricula: Aligning Higher Education with Industry Advancements" organized by Amity School of Engineering and Technology, Amity University, Madhya Pradesh from 04th August – 10th August, 2024.
- Dr. Ranbir Singh attended a one-week Faculty Development Programme on "Integrating Electric Vehicle Design Simulation & Control into Engineering Education" organized by NITTR Chandigarh & MathWorks, under AICTE- Karyashala initiative from 5 Aug to 9 Aug, 2024.
- Dr. Vishal Baloria delivered an invited talk at the Student Induction Program 2024-25 under Deeksharambh for new admissions at K.R. Mangalam University, Gurugram on August 31, 2024.
- Prof. Ziya Uddin delivered an invited talk on "Wavelets-Based Physics-Informed Neural Networks to Solve Non-Linear Differential Equations" in the Numdiff-17 International Conference held at Martin Luther University Halle-Wittenberg, Germany on 10 Sept 2024.
- Prof. Sridharbabu Yarramaneni. with ECOM students attended the SEMICONDUCTOR MANUFACTURING Tutorials WORKSHOP held at IIT Delhi Organized by ESSCI in collaboration with SEMI University on 09.09.2024 and 13.09.2024
- Faculty Orientation Programme in collaboration with Virtual Labs, IIT Kanpur was organised on 11 Sept 2024 coordinated by Prof. Sridharbabu Yarramaneni.
- Dr. Ranbir Singh participated & completed AICTE Training and Learning (ATAL) Academy Faculty Development Program on Transformative Technologies for Sustainable and Circular Production and Consumption for Vikshit Bharat 2047 from 16-21 Sept. 2024 at Great Lakes Institute of Management, Gurgaon.
- Dr. Kiran Sharma delivered a talk on "Over Two Decades of Scientific Misconduct in India: Retraction Reasons and Journal Quality among Inter-country and Intra-country Institutional Collaboration" in the 28th International Conference on Science, Technology and Innovation Indicators 2024 held in Berlin, Germany from Sept 18 to Sept 20, 2024.
- Prof. Anantha Rao, conducted an expert session on "Artificial Intelligence" on 24th Sept 2024 at

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- Lions Calcutta Greater Vidya Mandir, Kolkata.
 - Dr. Kiran Sharma attended international workshop on 'Social Mobility' at University of Zurich from Oct 9-11, 2024, at Zurich Switzerland.
 - M. S. Prabhas under the mentorship of Dr. Kiran Sharma presented a paper titled "ShareBloc: A unified ecosystem for secure file sharing and decentralized value exchange" at 3rd IEEE international conference on Blockchain and Distributed Systems, 2024, held at Pune on Oct 17-19, 2024.
 - An expert session on " Practical Use with Artificial Intelligence Tools" was conducted by Dr. Atul Mishra for IC3 Institute, under the Embark Global Foundation Program for School Educators on 5 Nov 2024.
 - Dr. Shakti Kundu, as a distinguished speaker, delivered a session on "AI and Data-Driven Decision Making for Institutional Leaders" in the 5-Days Faculty Development Program on "Leveraging AI to Transform Teaching and Learning in Higher Education" organized by the Association of Indian Universities from 18th to 22nd November 2024 at Vivekananda Global University, Jaipur.
 - Dr. Shakti Kundu as a keynote speaker, delivered a technical session on "The exploration of AI and ML based on Intelligent Systems" in IEEE Scopus indexed - 13th International Conference on "System Modeling & Advancement in Research Trends (SMART-2024)" organized by the College of Computing Sciences & Information Technology (CCSIT) from 06-07 December 2024 at Teerthanker Mahaveer University (TMU), Moradabad, UP, India.
 - Dr. N.Ch. Kaushik, Dr. Shakti Kundu and Dr. Nikhil Kumar participated in Geek & Hertz, the Annual Inter School International Tech Fest 2024– Ninth Edition at St. Marks Senior Secondary Public School, Meera Bagh, New Delhi on 10th Dec 2024 as judges, each for three different sessions related to the themes of design, coding and others.
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Research Realm

Research Publications (2023-24)

Our recent publications reflect the cutting-edge research and the latest insights published in leading journals. Below is a snapshot of our contributions to the global academic community. A total of 228 manuscripts published in leading journals, conferences, books and book chapters.



Project Seed Grant

Smart Blind Stick to Smart Eye- From Classroom Project to Startup Success

Smart Blind Stick was conceived by Kanika Sharma and Abhimanyu Gulati. This project blossomed into a startup, Smart Eye, under the mentorship of Dr. Srikanth K and Dr. Amiya Kumar Dash which was featured by Mediabrief.com. It is an innovative device developed to assist the visually impaired in navigating their surroundings with increased safety and confidence. Unlike the traditional canes, this product can identify and alert users to potential hazards such as hanging objects, speed breakers, potholes, pits, etc. Additionally, features like SOS button for emergency assistance and a 12V battery with an on/off switch ensure reliable functionality. SmartEye, is poised to revolutionize navigation even further. It comprises of a detachable unit designed to be fitted onto any stick, accompanied by a wristband for accessibility, and convenience purposes.



Aquaculture Water Quality Monitoring System (AWQMS)

AWQMS is a project conceived by students Shreyansh Tripathi and Akshay Menon under the mentorship of Dr. Nirupama M P. It is a dual-purpose device that not only monitors the quality of drinking water but also tracks critical parameters essential for the health of various fish species like Katla and Rohu. This device delivers real-time updates to farmers, ensuring that optimal water conditions are maintained, thus promoting healthier and more sustainable fish farming practices. The project reached a milestone with its prototype demonstration at the Government Fish Seed Farm in Lisana Jhajjar.



Visionary Voices

24th April 2024	Importance of Research Seminars and Discussions in Promoting Quality Research	Prof. (Dr.) Maneek Kumar, Dean, SoET, BMU
24th April 2024	Computational Biology Methods for Prediction of Anti-Hepatitis C Bioactivity of Peptides	Mr. Akash Saraswat, PhD Scholar, SoET, BMU
8th May 2024	Product Architecture and Product Innovation: Formulating an Objective Relationship through Automobile Design	Dr. Sushil Chandra, Professor of Practice, SoET, BMU
26th July 2024	Faculty Engagement and Collaborative Prospects: dialogue centred on potential research projects, notably leveraging Smart Manufacturing, AI, and machine learning for predictive analytics in Electric Vehicles (EV) and automotive sectors	Prof. Alok Mishra, Norwegian University of Science and Technology, NTNU, Norway
1st Aug 2024	Importance of Scientific Computing in this changing world and research prospects.	Prof. Ravindra Duddu, Dept. of Civil and Environmental Engineering, Vanderbilt University, USA
16th Sept. 2024	Feature Selection Techniques	Dr. Kavita Khanna, Campus Director, Delhi Skill and Entrepreneurship University, New Delhi
18th Sept 2024	Technology in Medicine: Transformations and Implications for the Future	Dr. Prateek Sharma, Professor of Medicine at the University of Kansas School of Medicine, USA
18th Sept 2024	Concept of Reality	Mr. Nitish Singh, Youtuber and Founder of Campus X
24th Sept 2024	Problem Identification and approach for development of solutions	Mr. H.K. Sharma, Plant Head, Metalman Micro Turners
20th Nov 2024	Breakthroughs Behind the Nobel Prizes in Physics and Chemistry in 2024	Dr. Arijit Maitra, Assistant Professor, SoET, Dr. Devanjali Relan, Associate Professor, SoET, Dr. Hirdesh Pharasi, Assistant Professor, SoET and Dr. Chhayabrita Maji Associate Professor, SoET
2nd Dec 2024	Faculty Engagement and Collaborative Prospects: dialogue centred on Artificial Intelligence, Empirical Software Engineering, Software Quality, Requirement Engineering, Human-Computer Interaction, Human-Robot Interaction, Sustainability, and Cybersecurity.	Dr Deepti, Professor, Department of Computer Science, Norwegian University of Science and Technology (NTNU)



Prof. Ravindra Duddu, Dept. of Civil and Environmental Engineering, Vanderbilt University, USA



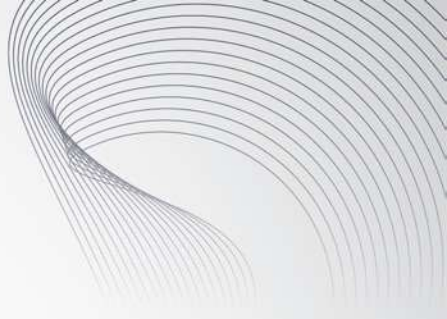
Prof. Alok Mishra, Norwegian University of Science and Technology, NTNU, Norway



Dr. Sushil Chandra, Professor of Practice, SoET, BMU

Echoes

Faculty and Staff (2024)



I realized the smooth hiring process and the onboarding experience. I found the induction programme informative and relevant. I have good connect with my reporting manager and team. My reporting manager tells me the basic understanding of my role, responsibilities and KRAs. The work environment of BMU is flexible. My best regards to BMU organization.

Dr. Shakti Kundu, Associate Professor-CSE, SoET



My experience with BMU started with a smooth onboarding process. Soon, I was introduced to a supportive team of faculty members, with whom I enjoy working with. BMU provides us with ample opportunities for growth and development. I am fortunate to be working with a vibrant community of mentors, colleagues and students.

Dr. Srikanth K, Assistant Professor-Mech, SoET

The working environment at the university is incredibly positive and motivating. The supportive culture among colleagues and leadership makes it a pleasure to come to work every day. The university truly values professional growth and provides ample opportunities for learning and development. I feel fortunate to be part of such an inspiring and dynamic workplace.

Dr. Pooja Choudhary, Assistant Professor-ECE, SoET



Working with BMU has been a transformative experience; their commitment to excellence is evident in everything they do. All my colleagues and mentors are helpful and lovely people. The environment around is very supportive. It has been great being here at BMU.

Dr. Aradhana Narang, Assistant Professor-Math, SoET

In addition to teaching, I have been involved in various activities for building up the entrepreneurial ecosystem at BMU. This has given me a good sense about the Management's perspective to build a leading institution benchmarked with global standards. Active involvement and cooperation of various stakeholders is encouraging for the journey ahead.

Mr. Kulbir Singh Lamba, Professor of Practice, SoET



The supportive environment and collaborative spirit among colleagues have made my transition smooth and energizing. Working with bright, eager students and having access to cutting-edge resources is both motivating and humbling. I look forward to contributing to and growing within this vibrant academic community.

Dr. Pramod Kumar Maurya, Assistant Professor- CSE, SoET



Starting a new journey at BMU has been an exhilarating adventure filled with new opportunities and discoveries. From the moment I arrived, I was welcomed into a vibrant community so amazingly. One of the most exciting aspects has been meeting new people from diverse backgrounds. I'm looking forward to making the most of this opportunity and embracing all the possibilities that lie ahead. I wish all the success to BMU.

Dr. Shilpa Mahajan, Assistant Professor-CSE, SoET

I have found my time on campus really amazing so far! The work culture here is everything I hoped it would be. I am adapting fast and learning so much from my colleagues and students. Looking forward to contributing in all possible ways and excited to see what the future holds. The university leadership's commitment to excellence is genuine, and I feel supported at every step so far. I am so glad I made the decision to join here at BMU - it feels like home already!

Dr. Arun Kumar Poonia, Assistant Professor-English, , SoET



I am thrilled to have discovered the possibilities of engaging with all the brilliant researchers at BMU, and being in a position to help translate their work for a broader audience. The experience has been warm, congenial, and I am excited to learn about all the fantastic work that's happening at SoET, and beyond. A walk on the lovely green campus is on my agenda, too!

Ms. Namita Kohli, Assistant Professor and Commissioning Editor- English, SoET

It's been an amazing experience so far. Everything is smooth and well organized. All the team members are very helpful. I appreciate all the good guidance from senior members.

Mr. Rajnish Kumar Dhangar, Lab Supervisor, SoET (ECE Lab)



The work environment here is incredibly supportive and collaborative, and I truly appreciate the open communication and teamwork across departments. I also feel that the university prioritizes work-life balance, which has made a significant difference in my overall job satisfaction. I am grateful to be part of such a dedicated and forward-thinking team, and I look forward to continuing to contribute to the university's success.

Mr. Anil Kumar, Senior Executive, Program Office-SoET

Alumni - Voices of Success

Astha Sharma's Inspiring Journey Beyond the Degree

Astha Sharma, a BTech Mechanical Engineering graduate from BMU (2016-2020), has overcome financial challenges and emerged as an inspiring figure in STEM. Supported by a scholarship, she excelled academically and discovered a passion for statistics, guided by mentors like Prof. Ziya Uddin and Prof. Prasada Rao. Her unique blend of mechanical engineering and statistics led her to roles at Hero Motocorp and Swiggy. A strong advocate for women in STEM, Astha is now pursuing a Master's in Statistics at Georgia Tech, where she continues to inspire others with her journey of resilience and growth.



BMU Alum Tarun Yadav Secures Historic Gold for India at AJP India Open

Tarun Yadav scripted history for Indian martial arts at the AJP (Abu Dhabi Jiu-Jitsu Pro) India Open. Competing against athletes from six countries, Tarun Yadav clinched the gold medal in the highly competitive -62kg Adults Professional category. This unprecedented victory marks India's inaugural gold in this division at this tournament.

Yadav's exceptional performance not only highlights his individual brilliance but also solidifies India's rising stature in the global jiu-jitsu landscape.



Celebrating Tushar Bhatia and Tarun Yadav, BMU's Distinguished Alumni of 2024

Tushar Bhatia: Visionary Entrepreneur with a Trailblazing Spirit

BMU proudly conferred the Distinguished Alumnus Award for 2024 upon Mr. Tushar Bhatia, a visionary entrepreneur from the second engineering batch (BTech Computer Science, 2019). Hailing from a family rooted in public service in Amritsar, Punjab, Tushar demonstrated entrepreneurial excellence early on by founding 'Brainweave' at BMU, focusing on student development and corporate social responsibility.

After graduating with flying colors, Tushar turned down a top placement offer at Addverb Technologies to pursue his entrepreneurial aspirations. As COO of Picxele, Director at Floatex Marketing Solutions, and co-founder of Indeekos, he transformed industries, from the gig economy to wellness. His ventures, including Digifuse and food-sector partnerships, achieved a combined annual turnover nearing \$20 million, creating job opportunities and making a lasting impact. Tushar's accomplishments highlight the transformative power of a BMU education, inspiring students to push boundaries and lead with innovation.



Tarun Yadav: A Champion's Journey of Resilience and Leadership



Mr. Tarun Yadav, a trailblazer from BMU's first engineering batch (BTech Mechanical Engineering, 2018), was awarded the Distinguished Alumnus Award for 2024. As an 8-time National Jiu-Jitsu Champion and Asian Games participant, Tarun's journey exemplified excellence, resilience, and leadership both on and off the mat.

Beginning his national title-winning journey during his student years, Tarun went on to become the first Indian to win gold at the prestigious Abu Dhabi Jiu-Jitsu Open in 2024. Beyond his personal victories, Tarun made a lasting impact by founding BMU Fight Club, India's first university-based Mixed Martial Arts Society. The club has since nurtured national champions, inspiring many to follow in his footsteps and pursue martial arts as a career.

Tarun's achievements stand as a testament to discipline, perseverance, and leadership, reflecting the values that BMU instills in its students.

The Road Ahead

Conference

The International Conference on Next-Gen in STEM (ICNGS-2025) aims to serve as a premier platform for showcasing cutting-edge research and innovation across a broad spectrum of STEM (Science, Technology, Engineering, and Mathematics) fields. The event will focus on transformative applications, sustainable solutions, and innovative methodologies that address global challenges. By encompassing diverse and interdisciplinary areas such as artificial intelligence, green technologies, robotics, biotechnology, data analytics, and education innovations, the conference seeks to attract high-quality papers from academicians, researchers, and industry professionals.

Save the Date: December, 2025

Proposed: B.Tech.-MBA Programme A Blend of Technology and Business Leadership

The School of Engineering and Technology, BML Munjal University, is launching a unique and innovative B.Tech.-MBA programme in 2025, designed to equip graduates with the skills and knowledge to thrive in the rapidly evolving world of technology and business. This five-year integrated program offers a seamless blend of technical expertise and managerial acumen, ensuring graduates emerge as well-rounded professionals ready to lead in diverse industries.

Programme Focus

This programme caters to two distinct student aspirations:

- **Computer Science Focus:** This program offers an opportunity for students pursuing an Integrated (B.Tech. CSE) – (MBA) degree, grounded in a comprehensive understanding of computer science.
- **Mechanical Engineering Focus:** The program provides a pathway for students seeking an Integrated (B.Tech. CSE) – (MBA) degree with a strong foundation in mechanical engineering.

Program Structure

- **Duration:** 5 years, with exit options after 3 and 4 years.
- **Total Credits:** 202
- **Six Specialized Tracks:**
 1. Analytics
 2. Supply Chain Management
 3. Marketing
 4. Product Management
 5. Entrepreneurship & Strategy
 6. Finance

Tech Conclave

Save the Date: 24th April, 2025



Campus
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