



BML MUNJAL UNIVERSITY™
A **HERO GROUP** INITIATIVE

PhD ADMISSION

Academic Year 2022-23

Full-Time & Part-Time PhD Programmes
at Schools of the University

School of Engineering & Technology
School of Law
School of Management



BRIJMOHAN LALL MUNJAL

1st July 1923 - 1st November 2015

About BMU

Named after the Chairman and Founder of the Hero Group, Dr. Brijmohan Lall Munjal, BML Munjal University (BMU) is a statutory not-for-profit University established in 2014 under the Haryana State University Act 2006 and recognized under section 2(f) of the UGC Act. The University is engaged in creating, preserving and imparting internationally benchmarked knowledge and skills to a diverse community of students worldwide. The university is mentored by Imperial College London and aims to nurture ethical leaders who are skilled, knowledgeable, and have the life skills needed to lead organizations to success.

BMU seeks to transform higher education in India by creating a world-class and innovative teaching, learning, and research environment. The university offers undergraduate, post-graduate, and doctoral programmes in various areas of Engineering and Technology, Business Management, Innovation and Entrepreneurship, Legal Studies, Languages, Literature, and Liberal Arts through its constituent schools and institutes.

Some of the milestones that BMU has achieved are:

- BMU was dedicated to the Nation by the then President of India
- Recognition by Department of Science & Technology as a research active institute
- Recognition by Niti Aayog as a valuable partner of 'samavesh'
- Establishment of Atal Community Innovation Centre by the Niti Aayog
- All India Rank 41 under Management Category by NIRF Ranking 2020, Ministry of Education

With strong industry sponsored research laboratories, state of the art incubation centre, excellent research infrastructure, industries & research collaboration with organizations both within and outside India and highly qualified faculty, the BMU aspires to transform the society through applied, practical and translation research leading to prototypes and product development, technology transfers and spin-off companies. The specific focus is on:

- a. Key challenges faced by communities which have high impact such as climate change, power, transport, food, manufacturing, access to health and education
- b. Adopting a life cycle approach from inspiration to implementation of path breaking ideas
- c. Integrating research insights from multiple disciplines to create practical solutions and sustainable development

BMU has partnered with various government research and government organizations such as National Physical Laboratory, Indian Space Research Organization, Central Institute of Plastic Engineering and Technology, Data Security Council of India and many more. In addition, BMU has partnered with several Industries and International Universities towards academic excellence. Some of them are Microsoft, KPMG, Luthra and Luthra Partners, Hero group of companies, Bergen group of companies, UC Berkeley, Purdue North West university, Carleton University, University of Warwick, Purdue Northwest University, Birmingham City University, Aston University, Loughborough University, London School of Economics and Commerce and Fraunhofer Institutes.

At BMU, besides conventional workshops and laboratories in various disciplines, we are equipped with the following,

- i) Siemens Centre of Excellence in Automation, Robotics and Mechatronics
- ii) Shell Learning Centre in Tribology and Lubricants
- iii) Hero Manufacturing Engineering Centre including Additive Manufacturing facilities
- iv) Centre for Advance Materials and Devices
- v) High Performance Computing facilities
- vi) Centre for Inclusive Innovation
- vii) Centre for Financial Market

Welcome note by Associate Dean - Doctoral Programmes

“BML Munjal University offers Doctoral Programmes in various constitute schools and institutes. The University is firmly committed to striving towards excellence in the respective domains of research and teaching. A critical component towards fostering a vibrant research ecosystem are high-quality doctoral programme(s). Towards this objective, BMU’s doctoral programmes have been carefully designed to provide the required foundations for a research-intensive career in the respective specializations. The active collaborations of BMU with industries and Universities of International repute, add substantial value to the Doctoral Research at the University. We extend a warm welcome to the fresh batch of Doctoral students. We are certain that you will find it exciting and fulfilling, as you embark on this exploratory journey and achievements in the domain you choose to work in.”



Prof. (Dr.) A. K. Prasada Rao
Professor & Associate Dean
Doctoral Programmes

About the Schools

a. School of Engineering & Technology (SoET)

i. About SoET

The School of Engineering & Technology (SOET) at BMU came into existence in 2014 with a goal of realising the vision and mission of the university. From the days of its inception, the School has been an integral part of the educational strategy of university with focus on experiential learning and cutting-edge interdisciplinary research. In this regard, the Ph.D. programme has been envisioned keeping in view the emerging needs of industry and society. Over a short span of time, SOET has developed world class infrastructure and laboratory facilities required for conducting innovative research work. The faculty members at SOET have rich research experience and are well equipped to guide students and conduct novel experiments and simulations. The School also lays strong emphasis on undergraduate research. The scope for undergraduate students and postgraduate research scholars working together on research projects presents a unique opportunity for collaborative effort and output. The School has active MOUs with well-reputed international universities which shall be beneficial for Ph.D. research scholars. These MOUs are intended to enhance the quality of the Doctoral Research through joint supervision, utilization of research infrastructure and student exchange. The School in addition to the already existing international collaborations, also has collaborated with industry leaders which helps the university students to develop expertise in their chosen areas.

ii. Welcome note by the Dean- School of Engineering & Technology

“Central to the vision and mission of SOET is to produce enlightened and ethical global citizens. This is sought to be achieved through excellence in teaching, promoting learning, research, and the pursuit of innovation. During the previous academic year, we also had 2 industry professionals who joined the Ph.D. program. We welcome all Ph.D. aspirants, who are willing to excel in their chosen field of interest, to join and take advantage of the state-of-the-art laboratories and research excellence centres on the campus, ably supported by experienced and enthusiastic faculty members. We at the school provide an environment which is very conducive to follow your intellectual pursuits, with multiple avenues to fulfil your thirst for enquiry and research. With sustained guidance available for writing quality research projects and articles, availability of quality research databases, you will find the best repository of resources in our library. We believe in an interdisciplinary approach by promoting technical, management and liberal education as the central intellectual thrusts and as the foundation for lifelong learning, and sincerely look forward to helping you achieve your best in your doctoral work. Once again, we wholeheartedly look forward to welcoming you to the serene and environmentally friendly surrounding of our campus.”



**Prof. (Dr.) Anirban
Chakraborti**
Dean
School of Engineering
& Technology (SOET)

iii. Centres of Excellence (COE)

The university continuously strives to promote world-class research activities at their in-house research facilities. The purpose of these facilities is to create opportunities for students to carry out important simulations, experiments, and characterizations within the campus. The centres of excellence hosted by the University cater to the needs of cutting-edge research. Details of COE are provided in Annexure-E.

iii. Faculty details and research areas

Name of the Faculty	Designation	PostDoc Experience	Research Areas
Prof. (Dr.) Anirban Chakraborti-PhD-Saha Institute of Nuclear Physics (Jadavpur University); Habilitation à diriger des recherches (HDR)-Université Pierre et Marie Curie, France	Professor, Dean (SoET, Research)	Brookhaven National Laboratory, USA; Helsinki University of Technology, Finland	Statistical Physics; Econophysics; Sociophysics; Complex Systems; Data Science; Nanomaterials
Prof. (Dr.) A. K. Prasada Rao, PhD IIT Kharagpur	Professor & Associate Dean-Doctoral Programmes (Expert member of Technical Sciences Committee, Czech Science Foundation, Czech Republic)	POSTECH (South Korea); CNAQ (Qatar); Brunel University (UK); University of Oxford (UK)	Artificial Intelligence in Materials Science; Alloy design; Aluminium and Magnesium alloys; High-entropy alloys; Casting and Solidification; Physical Metallurgy
Dr. Abhimanyu Singh Rana, PhD University of Pune	Associate Professor	National University of Singapore (Singapore); University of Twente (Netherlands)	Spintronics, Neuromorphic Devices, Oxide Electronics, Li-Ion Batteries; Transparent Electronics
Dr. Arpit Bhardwaj PhD - IIT Indore	Associate Professor	-	Genetic Programming, EEG Signal Classification, Evolutionary Computation
Dr. Ajay Kumar Sood, PhD IIT Delhi	Assistant Professor	-	Fluid Mechanics (Turbulent flows, drag reduction, fluid vibrations, LES, DNS)
Dr. Akhlaq Husain, PhD IIT Kanpur	Associate Professor	-	Partial Differential Equations, Numerical Analysis, Parallel Computing
Dr. Amarnath Bheemaraju, PhD UMass Amherst (USA)	Associate Professor	Washington State University (USA)	Organic electronics-Organic Solar cells and Organic Field effect transistors, Inorganic solar cells-CZTS based solar cells, Solar energy harvesting concentrators, Organometallics, Nano-inorganic materials for photocatalysis, Materials for remediation of air and water, Photo physics of semiconductor materials
Dr. Amiya Kumar Dash, PhD NIT Rourkela	Associate Professor	-	Mechanical Vibration, Industrial Safety Engineering
Dr. Anubhav Agrawal, PhD IIT Roorkee	Assistant Professor	-	Power Electronic Controlled Induction Motor
Dr. Arijit Maitra, PhD Westfälische Wilhelms Universität (Germany)	Assistant Professor	University of California-San Diego (USA); SUNY-Stony Brook, (USA)	Theory and simulation of materials - metals and polymers - at Nano and micro scales, Prediction of structure-property relations; Modelling of batteries and electrolytes; Methods - classical MD, Monte Carlo, Statistical Physics, Machine Learning

Name of the Faculty	Designation	PostDoc Experience	Research Areas
Dr. Ashok Kumar Suhag, PhD Gautam Buddha University	Associate Professor	-	VLSI Test, Low Power Design and Test
Dr. Devanjali Relan, PhD University of Edinburgh	Assistant Professor	-	Image Processing, Applied Machine Learning
Dr. Harish Puppala, PhD BITS Pilani	Assistant Professor	-	Shallow Geothermal Systems, GIS in Urban planning
Dr. Hridayesh Phrasi, PhD IIT Kharagpur	Assistant Professor	University of Duisburg-Essen, Germany; Instituto de Ciencias, Fisicas, UNAM, Mexico	-
Dr. Kiran Khatter, PhD Himachal Pradesh University	Associate Professor	-	Non-Functional Requirements, Applications of Fuzzy Logic in MADM, Optimization and image processing
Dr. Kiran Sharma, PhD Jawaharlal Nehru University, Delhi	Assistant Professor	Northwestern University (USA)	Computational Finance, Computational Social Science, Informetrics and Bibliometrics
Dr. Maheswar Dwivedy, PhD BITS Pilani	Associate Professor	-	Sustainable Machining, New and Improved Coatings, Cutting Tool Design and Dye-less Incremental Forming
Prof. (Dr.) Manoj K. Arora, PhD Swansea University (UK)	Professor & Vice Chancellor	Syracuse University (USA)	Digital Remote Sensing and GIS applications, Machine Learning for Information Extraction from Satellite Data, Geospatial Tools for Disaster Studies.
Dr. N. Ch. Kaushik, PhD NIT Warangal	Assistant Professor	-	Tribology, Materials Processing and Characterization, Macro-, Micro-, Nano- Mechanical behaviour of Materials
Dr. Neeraj Sharma, PhD Gautam Buddha University	Assistant Professor	-	Finite Element Modelling and Analysis of Composite, Experimental Characterization of Thermo-Mechanical, Thermal or Mechanical Behaviour of Composites
Dr. Nirupama M P, PhD Jain University	Assistant Professor	-	Vacuum Nanoelectronics Devices (Growth and Study of nanocarbon based materials for various nanoelectronics applications), VLSI Systems Design using Hardware Design Language, Verilog.

Name of the Faculty	Designation	PostDoc Experience	Research Areas
Dr. Pradeep Arya, PhD Anna University	Assistant Professor	-	Cloud Computing, Cloud Security, Network Security
Dr. Rajesh Yadav, PhD Mewar University	Assistant Professor	-	Cyber Security, Botnets, Malware, IOT Security, 5G Networks, Authentication & Network Slicing
Dr. Rajiv Dey, PhD IIITDM Jabalpur	Assistant Professor	-	Embedded system, IoT and control
Dr. Ranbir Singh, PhD DCRUST Murthal	Assistant Professor	-	Mechatronics & Automation, Flexible Manufacturing Design, Industrial Engineering & Manufacturing, Instrumentation
Dr. Ranjib Banerjee, PhD Jadavpur University	Assistant Professor	-	Nonlinear Dynamics and Chaos Synchronization, Computational Applied Mathematics, Complex Network and Pattern Formation
Dr. Rishi Asthana, PhD IIT Roorkee	Associate Professor	-	Hydrodynamic Stability, Computational Fluid Dynamics, Mathematical Modelling
Dr. Sanmitra Barman, PhD Kansas State University (USA)	Associate Professor	University of Texas (USA)	Light Induced Catalysis through Nanomaterials Applicable in Water Desalination, Water Purification, Nano sensors for Environmental Monitoring, Drug Delivery Vehicles with Nanomaterials
Dr. Satyendr Singh, PhD University of Allahabad	Assistant Professor	-	Natural Language Processing, Text Analytics
Dr. Soharab Hossain Shaikh, PhD University of Calcutta	Assistant Professor	-	Computer Vision, Image Processing, Machine Learning in Computer Vision Applications
Dr. Sambhunath Bera, PhD - Institute of Physics, Bhubaneswar (Utkal University)	Associate Professor	Japan Advanced Institute of Science & Technology, Japan; Atomic Energy Commission (CEA), Paris-Saclay, France; Northern Illinois University, USA; University of California, San Diego, USA	Surface & Interface Physics Nanoscience Magnetism & Spintronics
Dr. Suchitra Rajput Chauhan, PhD IIT Delhi	Assistant Professor	Ankara University (Turkey)	Superconductors, thin films, Nanomaterials, Water Remediation, Coating on Biomedical Devices
Dr. Tabish Rasheed, PhD Aligarh Muslim University	Associate Professor & Faculty coordinator PhD programme of SoET	-	Organic Electronics, Organic Solar Cells, Computational Chemistry (Density Functional Theory), Quantum Chemistry, Molecular Spectroscopy

Name of the Faculty	Designation	PostDoc Experience	Research Areas
Dr. Vishal Baloria PhD - Guru Nanak Dev University, Amritsar	Assistant Professor	Indian Institute of Science, Bangalore, CSIR-National Physical Laboratory, New Delhi	Thin Films, Nanomaterials, Chemical and Gas Sensors, Micro and Nanofabrication, Sensor devices and Sensor Array/Electronic Nose,
Dr. Yarramaneni Sridharbabu, PhD Kurukshetra University	Associate Professor	-	Electrical Characterization of Dielectric Materials, Synthesis and Characterization of Nanocomposite Materials
Dr. Yogesh Gupta, PhD Dayalbagh University	Associate Professor	-	Information Retrieval, Data Analytics, Optimization Techniques, Machine Learning
Dr. Ziya Uddin, PhD G. B. Pant University of Agriculture & Technology	Associate Professor	Université de Valenciennes et du Hainaut-Cambrésis (France)	Applied Mathematical Modelling, Computational Fluid Dynamics, Modelling of Nano Fluids & Heat Transfer, Soft Computing and Applied Numerical Methods

3(b). School of Management (SoM)

i. About SOM

The School of Management has designed its PhD programme to train students, transforming them into learned, skilled, and knowledgeable academicians dedicated to the service of nation and world. The programme structure is conceptualized, keeping the experiential learning vision in mind with an interdisciplinary research approach in fundamental and applied research. Research scholars are expected to publish high impact papers in ABDC/SCI/Scopus indexed journals of high international repute and present their important results at national/international conferences to showcase their work to the society. They must be able to carry out quality research work and guide others in conducting research after completing their PhD degree. The programme envisions enhancing their ability to teach undergraduate and postgraduate students. A mandatory pre-Ph.D. course work will allow the candidates to learn and master research techniques indispensable for their research during the doctoral programme. These courses may be offered jointly with other schools in the university or international universities with which the University has MOUs. The PhD students may also get an opportunity to be supervised by eminent faculty of these universities.

The school has established a successful tradition of creating academic research centres to focus our teaching, research, and community outreach around particularly important subjects. Building on the foundational excellence of the school's curriculum, we intend to strengthen these centres in a move that we know will distinguish us from other business schools.

ii. Welcome note by the Dean – School of Management

“We are a young and forward-thinking University that realizes the importance of knowledge creation and research as important drivers of learning and contribution globally. We want to be at the forefront of cutting-edge research within management, humanities, and the social sciences. Our experienced, research-oriented faculty have been publishing regularly at the highest levels and have been involved in important scholarly projects across the spectrum. Our doctoral scholars have also been making waves within contemporary research areas such as Marketing/Retail management and behaviour, Financial Management, Organizational Behaviour and Leadership, Industry 4.0, Analytics and Decision Sciences, Corporate Social Responsibility, Pedagogical advances, to name a few. We are also very keen on aspiring doctoral scholars who are on the cusp of the technical and management domain and would like to contribute academically in this area.”



Prof. (Dr.) Jaskiran Arora
Dean
School of Management

iii. Centre for Financial and Capital Markets

Centre for Financial and Capital Markets aims to facilitate and encourage research and teaching in financial markets, Investment as a life skill, Application of technology in financial services including newer technologies like Blockchain and Artificial Intelligence (AI), Entrepreneurship, an incubator for startup ideas in Financial Literacy, Financial inclusion, Fin-tech solutions and any other related areas. The Centre intends to provide financial markets laboratory to support faculty and scholars in teaching and conducting research on Financial Markets (Bloomberg terminal), provide TrakInvest.com platform for acquiring and enhancing investment skills, delivering various up-skilling courses linked to industry requirements, launch various FDPs and MDPs open to candidates beyond the Campus and constituting a board of mentors who regularly screens new business ideas and incubates the shortlisted ones until they secure funding.

iv. Centre for Marketing Analytics

The centre aims to offer marketing expertise in the practical application of big data and advanced analytics. We know that the most critical skills for success include the capacity to assess where an organization is, define where it wants to go, and plan for getting there. We have successfully completed research and consultancy projects with public and private organizations. We have knowledge to tackle a range of problems facing those using predictive and prescriptive analytics, including demand planning, market modelling, and so on. In addition to this, we design and deliver courses and MDP to meet industry specific needs, using interactive material that gives attendees hands-on experience. Throughout the year we host a range of events, including courses, guest speakers, conferences, conclave, it is a great way to tap into our expertise.

Faculty and Research Areas

Faculty Name	Designation	Post-Doctoral	Area of Research Interest
Dr. Anusree Paul, PhD University of Calcutta	Associate Professor	Jawaharlal Nehru University	Health Economics, International Economics
Dr. Deepak Pandit, PhD Management Development Institute (MDI)	Chair Professor	-	Innovation and Entrepreneurship
Dr. Deepti Sharma, PhD Dr. B. R. Ambedkar University- Agra	Assistant Professor	-	Linguistics
Dr. Dheeraj Chandra, PhD – IIT, Roorkee	Assistant Professor	IIT, Kanpur	Supply chain management, production and operation management, inventory theory, multi criteria decision making
Dr. Dipankar Das, PhD The University of Burdwan	Assistant Professor	-	Decision Theory, Complexity Economics, Computational Economics, Game Theory
Prof. (Dr.) Jaskiran Arora, PhD Maharshi Dayanand University, Rohtak	Professor & Dean	-	Earnings Management, Higher Education, Corporate Social Responsibility, Problem Solving
Dr. Jaya Ahuja, PhD Jamia Millia Islamia University	Assistant Professor	-	Work-Life Integration, Sustainable HRM, Organizational Climate & Virtual Teams
Dr. K.K.Jain, PhD IIT Delhi	Assistant Professor	Curtin University, Perth, WA, Australia	Project Management, Applied Data analytics, Sustainable Development, Life Cycle Design
Dr. Richa Mishra, PhD Manipal University	Associate Professor	-	Employee Engagement, Organizational Citizenship, Procrastination, Employee Stress
Dr. Rik Paul, PhD Ibs Hyderabad, Ifhe University	Associate Professor	-	Services Marketing, Internet of Things (IoT), Innovative Pedagogy, Consumer Behaviour
Dr. Ritu Chhikara PhD FMS (Delhi University)	Associate Professor	-	Sustainability, Sensory Marketing, Consumer Behaviour, Retail Management, Branding
Dr. Ruchi Garg, PhD Management Development Institute (MDI)	Assistant Professor	-	Sustainability, Consumer Brand Relationship, Sensory Marketing, Consumer Behaviour, Branding
Dr. Sangita Das Dutta, PhD Jadavpur University	Associate Professor	-	Microenterprises, Gender, Macroeconomics
Dr. Vaishali Sharma, PhD Delhi Technological University	Assistant Professor	-	Marketing and International Business, Supply Chain Management/Reverse Logistics, Remanufacturing

3 (c). School of Law (SoL)

i. About SoL

The PhD Programme in Law is designed to facilitate generation of high-quality researchers, capable of understanding legal theory, legal practice, and the relationship between them through a rigorous doctrinal and inter-disciplinary research. The programme structure is conceptualized keeping the experiential learning vision in mind with an interdisciplinary research approach in fundamental and applied research. Research scholars are expected to publish high impact papers in journals of high international repute and present their important results at national or international conferences to showcase their work to the society. They must be able to carry out quality research work and guide others in conducting research after completing their PhD degree. The program envisions to enhance their ability to teach undergraduate and post-graduate students. A mandatory pre-PhD course work will give the candidates an opportunity to learn and master research techniques indispensable for carrying out their research during doctoral programme. These courses may be offered jointly with other schools in the university or international universities with which the University has MoUs. The PhD students may also get an opportunity to be jointly supervised by eminent faculty of the Universities/ Institutions, who have MoUs with the School.

ii. Welcome note by the Dean – School of Law

“Welcome to the PhD programme at the School of Law! We want you to take advantage of our diverse faculty interests, our state-of-the-art legal databases, and our interdisciplinary resources that span engineering, management, and economics. Research at the law school, while important in its own right, serves also as fuel for teaching, for good teachers are invariably good researchers. We want our PhD scholars to be enterprising, innovative and creative on the one hand and meticulous, detail oriented and time conscious on the other, for the PhD process requires a combination of imagination and perspiration. We would like you to combine your research zeal with your knowledge, with an emphasis on combining theory and practice in such a way that your doctoral output has the maximum impact on and relevance to the legal profession. Above all, we invite you to enjoy yourself in legal academia, and become an important part of the vibrant intellectual climate at BMU.”



Prof. (Dr.) Pritam Baruah
Dean
School of Law

iii. Law Library and Infrastructure

The university has one of the best state-of-the-art libraries in the region. There are approximately 1136 books from various areas to engage the intellectual curiosity of the students at BMU. We subscribe to several online databases like Academic Search Premier, EBSCO Business Source Premier, Sage Online, Thomson Reuters, Manupatra, Lexis-Nexis India Online, etc. We plan to expand this further in near future as well. Peer-reviewed journals are available at the desktop of faculties and students. At the same time, many hard-bound journals, conference proceedings, dissertations are available in the library. Students can find all important dailies and magazines like Economist, Outlook, Frontline, etc. in the library.

iv. Legal Aid Centre

The university has a Legal Aid Centre to provide free legal aid to the poor people and help students acquire experiential learning. The centre has an emphatic approach towards those who are seeking justice. The Legal Aid Centre is used for spreading awareness, organizing workshops on contemporary issues in collaboration with District Legal Services Authority, Gurugram. Also, the centre is used for legal aid clinic, conduct rural legal aid camps, organize interactive sessions with eminent lawyers, judges, bureaucrats and social activists.

Faculty and Research Areas

Faculty Name	Designation	Research Areas
Dr. Akhilendra Pratap Singh	Assistant Professor	Environmental Law, Comparative Law, Constitutional Law
Dr. Kavita Chawla, PhD Jamia Millia Islamia, New Delhi	Assistant Professor & Assistant Dean (Academics)	Commercial and business laws, Personal Laws
Prof. (Dr.) Pritam Baruah, PhD University College London, United Kingdom	Professor and Dean- School of Law	Political Philosophy, Jurisprudence, Constitutional Law
Dr. Vikas Kathuria, PhD Tilburg University, Netherlands	Associate Professor	Law & Economics, Competition Law

4. International MOUs

The list of international institutes/universities having active MOUs with BML Munjal University is as follows:

USA	Saint Mary's College of California
USA	Milwaukee School of Engineering
UK	Birmingham City University
UK	Aston University
Norway	University of AGDER
UK	Imperial College London
UK	School of Business and Economics, Loughborough University
Bangladesh	North-South University, Dhaka
USA	University of Michigan- Flint
USA	Purdue Northwest University
USA	Kent State University
Nepal	Tribhuvan University

5. Funded Research/Consultancy Projects

1. Details of past research projects:

Title & Scope of the project Proposed	Agency	PI/Co-PI	Year	Duration (Months)	Total Amount (Lakhs)
Investigations of structure and properties of H bonded unsymmetrical n-type Organic semiconductors: towards efficient organic field effect transistors.	DST (Young Scientist Project)	Dr. Amarnath Bheemaraju	2015	36	20.60
Royal Academy of Engineering, UK, Project for developing a course on Thin Films, Surface Engineering and Vacuum Technology for Higher Education Partnership	Royal Academy of Engineering, UK	Prof. B.S. Satyanarayana, Prof. O. S Panwar, Dr A. S. Rana	2016	24	45.00
Improving the Effectiveness of Jan Aushdhi Stores,	NITI AAYOG	Prof. B.S. Satyanarayana, Vishal Talwar, Dr. Ritu Chikara, Dr. Ruchi Garg	2018	2	25.00
Design and Installation of Solar Panels	Indian Electronics and Semiconductor Association & DIETY, Govt of India	Prof B. S. Satyanarayana	2017	6	5.00
Study of Effect of Pouring Effect on the Porosity in the HPDC cast Al-Si Alloy Motor Housing.	Rockman Industries, Bawal	Dr. A K Prasada Rao	2017	6	3.00
Diffusion barrier coatings for automotive engine applications	Rockman Industries, Ludhiana	Prof. B.S. Satyanarayana, Prof. O. S Panwar, Dr A. S. Rana, Dr. Tabish Rasheed, Dr. Amarnath Bheemaraju	2017	36	17.50
Reduction of Casting Defects Alloy wheels	Rockman Industries, Haridwar	Dr. A K Prasada Rao	2019	6	3.12
Direct- Chill Slab Casting Process Development	M/S Everest Aluminium Pvt. Ltd.	Dr. A K Prasada Rao	2019	12	9.00
Enhancing Customer Value Perception of Public hospitals by eliciting Multi -Sensory Experiences: A Study of Bangladesh and India	NSU	Dr. Riasat (NSU faculty)/ Dr. Ritu Chhikara, Dr. Ruchi Garg, Dr. Vishal Talwar	2019	12	4.38
To provide the technical advisory in building an aluminium recycling plant at Ahmedabad	M/s Maruti Recycling Ltd., Ahmedabad	Dr. A K Prasada Rao	2020	24	10.00

Title & Scope of the project Proposed	Agency	PI/Co-PI	Year	Duration (Months)	Total Amount (Lakhs)
Product modeling and designing, cabinet designing with thermal cooling for IMPRINT Project	National Institute of Technology, Rourkela - 769008, Odisha, India	Dr. Amiya Das (PI) Dr. Ranbir Singh (Co-PI)	2020	12	5.00
"Initiative for Digital Intervention in Teaching, Learning & Assessment Processes"	CRSU, Haryana	Dr Ritu Chhikara and Dr. Ruchi Garg	2020	2	00.50
Rebranding of company productfolio of lakshya dairy	Lakshya dairy foods India, +919820224484	Dr. Ritu Chikara, Dr. Ruchi Garg	2018	6	7.48
Spectroscopic Investigation on Functionalized Fullerene Derivatives For Prediction of Efficient Acceptors in Organic Solar Cells under SERB Young Scientist Scheme	SERB (New Delhi)	Dr. Tabish Rasheed	2016	36	16.77

2. Details of on-going research projects:

Title & Scope of the project Proposed	Agency	PI/Co-PI	Year	Duration (Months)	Total Amount (Lakhs)
"Mathematical Modelling of Stationary Heat Diffusion in Heterogeneous Materials"	SERB	Dr. Akhlaq Husain	2020	36	6.60
Safe usable water at affordable cost: efficient, human friendly and affordable solution to re-mediate textile dye contaminated water via photo-catalysis using processed nanoparticles	SERB	Dr. Suchitra Chauhan	2021	36	4.46
MEMS sensor array for Environmental pollution monitoring	DST Inspire Faculty	Dr. Vishal Baloria	2021	60	35.00
Innovation and Entrepreneurship (IIE)	Border Mission Limited, 10 Changi South Lane, #07-01, Singapore – 486162	Prof. H.E. George / Prof. Deepak Pandit	2020	60	187.50

3. Details of ongoing research projects planned to be undertaken during the next 3 years:

Title & Scope of the project Proposed	Agency	PI/Co-PI	Year	Duration (Months)	Total Amount (Lakhs)
Remote assessment of PMGSY road using Drone based survey	NIRDA	Dr. Harish Puppala, Prof. Ajit Pratap Singh, Dr. Srinivas , Dr. Pratheek	2021	24	17.58
Un-diluted Recycling of Cast Aluminium Alloys Containing High Fe Impurity Suitable for SMEs	Satyabhama Portal - Ministry of Mines	Dr. A.K Prasad Rao	2022	24	88.57
Development of Smart Materials for Transparent Neuromorphic Electronics	SERB	Dr. Abhimanyu Singh Rana	2022	36	13.8
Low energy ion-beam-induced tailoring of magnetic properties of thin films and multilayers	SERB	Dr. Sambhunath Bera	2022	36	37.29

PHD ADMISSIONS ACADEMIC YEAR 2021-22

Applications are invited for admission into Doctoral Programmes (PhD) across various schools of the University, for the AY 2022-23. All relevant details of PhD admissions (AY 2022-23) are provided in this section.

How To Apply: Application forms should be submitted online only.

Contact Details:

Please e-mail all your queries to: phdadmission2022@bmu.edu.in ; <https://www.bmu.edu.in/courses/ph-d/>

A. Eligibility Criteria

The minimum educational qualifications for admission to the PhD programme are as follows:

1) School of Engineering & Technology

i) Master's degree in Engineering/Technology of 2 years duration or equivalent (after graduation in respective discipline) with a minimum Cumulative Grade Point Average (CGPA) of 6 on a 10-point scale or equivalent as determined by the university wherever letter grades are awarded; or 55% marks in aggregate (of all the years/ semesters) where marks are awarded. Those students who are on the verge of completion of their master's degree (in final semester) are also eligible to apply. However, their admission is subject to submission of final marksheet and qualifying the minimum prescribed eligibility criteria at time of registration.

GATE qualified candidates (within last two years) are exempted from admission test and are eligible for direct interview subject to qualifying the minimum prescribed eligibility criteria (as prescribed above).

ii) Master's degree in Science of 2 years duration or equivalent (after graduation in respective discipline) with a minimum Cumulative Grade Point Average (CGPA) of 6 on a 10-point scale or equivalent as determined by the University wherever letter grades are awarded; or 55% marks in aggregate (of all the years/ semesters) where marks are awarded. Those students who are on the verge of completion of their Master's degree (in final semester) are also eligible to apply. However, their admission is subject to submission of the final marksheet and qualifying the minimum prescribed eligibility criteria at time of registration.

NET/GATE qualified candidates are exempted from the written entrance examination (BMU Test) and are eligible for direct interview subject to qualifying the minimum prescribed eligibility criteria (as prescribed above).

2) School of Management

Master's degree (with a minimum of 55% marks OR minimum Cumulative Grade Point Average (CGPA) of 6 on a 10-point scale or equivalent as determined by the University wherever letter grades are awarded) in relevant specialization, from a recognized university. Those students who are on the verge of completion of their Master's degree (in final semester) are also eligible to apply. However, their admission is subject to submission of final marksheet and qualifying the minimum prescribed eligibility criteria at time of registration.

3) School of Law

Master's degree (with a minimum of 55% marks OR minimum Cumulative Grade Point Average (CGPA) of 6 on a 10-point scale or equivalent as determined by the University wherever letter grades are awarded) in relevant specialization, from a recognized university. Those students who are on the verge of completion of their master's degree (in final semester) are also eligible to apply. However, their admission is subject to submission of final marksheet and qualifying the minimum prescribed eligibility criteria at time of registration.

B. Eligibility Criteria

(a) Full-Time Research Scholars who will carry out their research full time on the campus. GATE/NET/BMU Test qualified full-time research scholars will be called as University Fellows. Each University Fellow will receive a fellowship to cover his living expenses and expenditure on his/her research work, as per university policy. All University Fellows will be engaged in 8-10 hours/week of teaching assistantship and act as Teaching Assistants (TAs), as recommended by the Dean of the respective School.

(b) Part-Time Research Scholars

- i) Internal: Faculty and staff of BML Munjal University.
- ii) External: Other organisations

(c) Sponsored (Full-time/ Part-time): Candidates sponsored by an industry/ organization. The candidate (full-time/ part-time) will be exempted from the written entrance examination (BMU Test) and will directly be considered for a personal interview, if his/ her Ph.D. programme is fully sponsored by an organization/ Industry. The candidate must submit an endorsement letter from the sponsoring organization confirming the sponsorship.

(d) International Students: Students of foreign nationality/ or Non-Resident-Indians (NRI). They are not entitled for University Fellowship/ Scholarship.

C. Fee Structure

Item	Fee (in INR)	
One Time Charges		
Application Fee (Students of all categories)	1,500/- (Non-refundable)	
Admission Fee (Students of all categories)	15,000/- (Non-refundable)	
Security Deposit (Students of all categories)	50,000/- (Refundable)	
Thesis Evaluation fee (to be paid before submission of thesis) (Students of all categories)	30,000/- (Non-refundable)	
Recurring Charges (in INR)		
	Full-Time	Part-Time
Tuition Fee (Non-refundable) (per semester)	62, 500/-	62, 500/-
Hostel Fee (For unmarried, Single occupancy) * (Full-Time students only) (Non-refundable) (per month)	4,500 /-	N/A
Married Accommodation Fee (Only for married Students) * (Full-Time students only)	8,000/-	N/A
Food and Laundry (for Unmarried students) (Full-Time students only)	6,900/-	N/A
* Electricity charges (per month) at actuals; General PhD duration is expected to be 4 years (minimum of 3 years and a maximum of 6 years, to be extended on a case-by-case basis review, for periods beyond 4 years)		
Note: The industry/ organization sponsoring the candidate shall pay the prescribed fees directly to the University.		

D. University Fee-Waiver/ Scholarship, Fellowship

A) Fee waiver: All PhD full time PhD applicants (excluding: International and industry sponsored categories) are eligible for tuition fee waiver of up to 80% as the Scholarship, which will be recommended by the selection committee to the approving authority, whose decision will be final and binding. The continuation of scholarship in subsequent semesters will be as per the university policy

B) University Research Fellowship: All full time PhD research scholars (excluding: International and industry sponsored categories) recommended for admissions will be awarded University Research Fellowship of **INR 40,000/- (per month)** for first two years and **INR 50,000/- (per month)** for third and fourth year. These students will be called as University Research Fellows. The continuation of University Research Fellowship will be based on monthly satisfactory reports from the PhD supervisors.

E. Professional Development Grant

Each full-time research scholar shall be eligible for a Professional Development Grant (PDG) of INR 20,000/- (per annum) for first two years and INR 50,000/- (per annum) for the subsequent two years for their professional development, carrying out research activities, attending conferences/workshops, etc. Similarly, each part time PhD scholar will also be eligible for a PDG of INR 15,000/- (per annum) for first two years and INR 25,000/- (per annum) for the subsequent two years. The applicability of PDG will be as per the University policy.

• MANDATORY ON-CAMPUS ACCOMMODATION FOR FULL-TIME STUDENTS (CHARGEABLE AS PER UNIVERSITY RULES)

- Single occupancy bachelor hostel accommodation: For unmarried Ph.D. research scholars **(Charged@Rs. 4,500 per month)**
- Family accommodation: For married PhD research scholars shall be provided on the recommendation of the Supervisor and subject to availability. **(Charged @ Rs. 8,000 per month)**

F. Structure of PhD programme:

Admission ➡ Registration ➡ Prescribed Pre-PhD Course Work ➡ Research Protocol Presentation
➡ Six monthly progress review ➡ Pre-Synopsis Report and Presentation ➡ Submission of Thesis ➡
PhD Defence and Final Viva-Voce

G. Monitoring of the progress: The progress of the research work shall be monitored by PhD supervisor(s). A School level committee and a University level committee (URPC) shall monitor the student's progress on a systematic schedule basis. After submission of thesis and completion of review process by the reviewers, the candidate will be required to defend his/her thesis before a PhD Examination Committee. Upon satisfactory defence by the student, the committee shall recommend the thesis for award of a PhD degree.

H. Important dates

Important Dates (Summer Session, Jul~dec 2022)

Last date for Online Submission of Applications	Monday, 02nd May 2022
Date of Entrance Exam (Online)	Wednesday, 01st Jun 2022
Schedule of Interviews (Online)	06th to 11th Jun 2022
Selection Notification (through e-mail)	Monday, 20th Jun 2022
Registration Dates	04th to 08th Jun 2022

Important Dates (Summer Session, Jan~jun 2023)

Last date for Online Submission of Applications	Monday, 21st Nov 2022
Date of Entrance Exam (Online)	Wednesday, 07th Dec 2022
Schedule of Interviews (Online)	12th to 17th Dec 2022
Selection Notification (through e-mail)	Monday, 26th Dec 2022
Registration Dates	02nd to 06th Jan 2023

I DETAILS OF TEST/INTERVIEW

- Candidates who have valid GATE/UGC/NET/CAT/GMAT qualification/score within the last two years, or any other equivalent national scholarship examination, are exempted for the written entrance exam (PART-1 & PART-2). However, they are required to appear before a selection panel for an Interview. All other candidates have to appear for the entrance examination (PART-1 & PART-2) conducted by BMU followed by an interview by a selection panel.
- The minimum qualifying marks in Ph.D. entrance test shall be 50%.

J. Details of online written test

(a) **PART-I (Common to all):** Syllabus see [Annexure-A](#)

(b) **Syllabi for Subject Specific Test (PART-II)**

School of Engineering and Technology

Mechanical, Electronics, Computer Science: Click to see [Annexure- B](#)

Physics, Chemistry, Maths: Click to see [Annexure- C](#)

School of Management

Subject specific test syllabus: Click to see [Annexure- D](#)

School of Law: : Socio-Legal Research Methods; Constitutional Law; Administrative Law; Criminal Law; Intellectual Property Laws; Corporate Law; Environmental Law; Gender Justice; Family Law; Jurisprudence; International Law

(C) Structure of the Question Paper

The pattern for online entrance test shall be in the form of two parts as defined below:

PART-I: Research methodology (50 objective type questions)

PART-II: Subject specific (50 objective type questions)

NO NEGATIVE MARKING

K. Admission Procedure (For all schools)

Admission to the PhD programme shall be made based on the minimum eligibility criteria of candidate as mentioned above. Admissions will be carried out twice, in July and December in an Academic Year. However, the candidates who are GATE (within last two years) / NET and satisfy the minimum eligibility criteria may be called for interview at any time during the year. In case of selection, these candidates will be offered provisional admission, and will be formally registered during the start of the immediate next semester. Typical admission procedure to be followed is:

- **On-line submission of completed application form with all relevant enclosures and application fee**
- Review of applications and short-listing of candidates by the screening committee
- Written Test
- Interview by the selection committee

Candidates recommended by the selection committee will be notified and a formal offer of admission will be given. The committee's decision in this regard is final and binding.

In addition to the above stated procedure, candidates have to submit a research proposal of about 2000 words (for all Schools) at the time of interview.

The research proposal should contain:

- i) Title
- ii) Statement of the problem and the background information on the subject
- iii) How will you go about your research?
- iv) Why do you think the project is worth doing?
- v) Whether you see any links with your previous work?
- vi) Sources to be consulted.

The interview will be based on research proposal and Candidates will be judged on following criteria:

1. Clarity in research plan (including the title, subject matter and research methodology)
2. Depth of knowledge of the subject discussed in the research plan
3. The quality of research and analysis in the research plan
4. Practical relevance of the research plan.
5. Potential to undertake high quality research



BML MUNJAL UNIVERSITY™

A HERO GROUP INITIATIVE

The BMU logo embodies the truth that all people, no matter how different, share a common root. The tree is a symbol of the endurance of knowledge and enlightenment. The kaleidoscope of colourful circles that make up its branches represent the many disciplines of knowledge and shades of opinion that freely overlap to create new thoughts and ideas. We endeavour to have every BMU student imbibe an acknowledgement of the essential humanity of mankind and respect for the diversity of cultures & opinions, as they go forward to take their place in the real world.

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