



ALLIANCE
UNIVERSITY

Private University established in Karnataka State by Act No.34 of year 2010
Recognized by the University Grants Commission (UGC), New Delhi

NAAC
GRADE A+
ACCREDITED UNIVERSITY



DOCTORAL AND POSTDOCTORAL PROGRAMMES

JOIN OUR RESEARCH FRATERNITY TO SOLVE
REAL-WORLD PROBLEMS





ALLIANCE UNIVERSITY

Alliance University is the first Private University in South India, established in Karnataka by Act No. 34 of 2010, and is recognised by the University Grants Commission (UGC), New Delhi. The University is accredited with an A+ grade by the National Assessment and Accreditation Council (NAAC).

The University considers research the essence of all teaching and learning practices. A unity between research and teaching is promoted to extend the frontiers of knowledge to solve real-world problems on a local, national, and global scale.

For this purpose, the University seeks to be the nerve centre of interaction between the industry, the government, the civil society, and the community at large.

In times when technological and social change is transforming the very idea of employability, the University embraces the increasing diversity of specializations while retaining the impulse to unify all knowledge.



AWARDS, ACCOLADES AND ACCREDITATIONS

NAAC
GRADE A+
ACCREDITED UNIVERSITY

Ministry of Education
Government of India

nirf NATIONAL INSTITUTIONAL RANKING FRAMEWORK 2025

RANKED **20th** IN LAW
RANKED **71st** IN MANAGEMENT
(151-200 RANK-BAND UNIVERSITY)

Recognised by University Grants Commission, India

ज्ञान-विज्ञान विमुक्तये



Recognised as a Scientific and Industrial Research Organisation by the Department of Scientific and Industrial Research, Ministry of Science and Technology, Government of India



Technology Business Incubator, Approved by MSME, Government of India with a Corpus Fund of ₹ 10 Crores sponsored by Alliance Business School

QS WORLD UNIVERSITY RANKINGS **20** YEARS ASIA - 2024

RANKED **#751-800** OVERALL ASIA **#238** SOUTHERN ASIA

Ranked Among the Top 1% of Universities in South Asia 2024



Ranked No.1. in the National Sustainability Impact Institution's Ranking (NSIIR) by AIC-RAISE of the Atal Innovation Mission officially supported by Niti Aayog, Government of India



Approved by All India Council for Technical Education



Platinum for Teaching and Learning, Employability, Facilities and Social Responsibility



Alliance School of Law is approved by Bar Council of India, New Delhi



Accreditation for Business Programmes through the International Accreditation Council for Business Education (IACBE), USA



A member of The Association to Advance Collegiate School of Business (AACSB), USA



Ranked in the Digital Institutional Index & Smart Campus Rankings by Global University Rankings, London



Among the Top Digi100 Higher Education Institutions Recognizing Outstanding Digital Excellence



RANKED **2nd** Among Top 36 Private Universities India

RANKED **5th** Among Top 50 Institutions: Placements India

RANKED **3rd** Among Top 20 South B-Schools India

RANKED **10th** Among the Top 100 B-Schools

CENTRE FOR RESEARCH

The Centre for Research at Alliance University oversees the doctoral programmes and promotes quality research through various Centres of Excellence (COEs) and publications. As the nodal research centre for Alliance University, it is committed to facilitate and promote all academic research related activities. The Centre seeks to focus on providing a platform to researchers and academicians for thought provoking research on new and emerging fields and revolves around advancing knowledge and innovation within specific fields or interdisciplinary areas.



**SIRO
RECOGNISED**

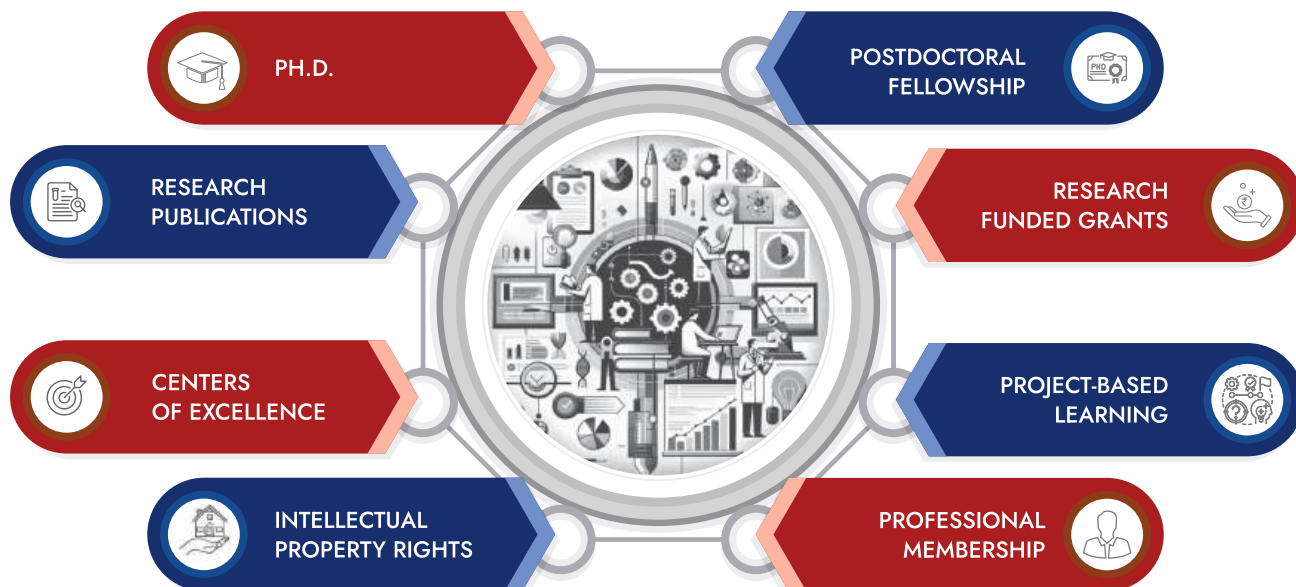
Recognised as a Scientific and Industrial Research Organisation by the Department of Scientific and Industrial Research, Ministry of Science and Technology, Government of India



**NATIONAL RESEARCH
DEVELOPMENT CORPORATION**

An Enterprise of DSIR
Ministry of Science and Technology, Govt. of India

Alliance University enters MoU with National Research Development Corporation, Ministry of Science and Technology, Government of India for Tech transfer.



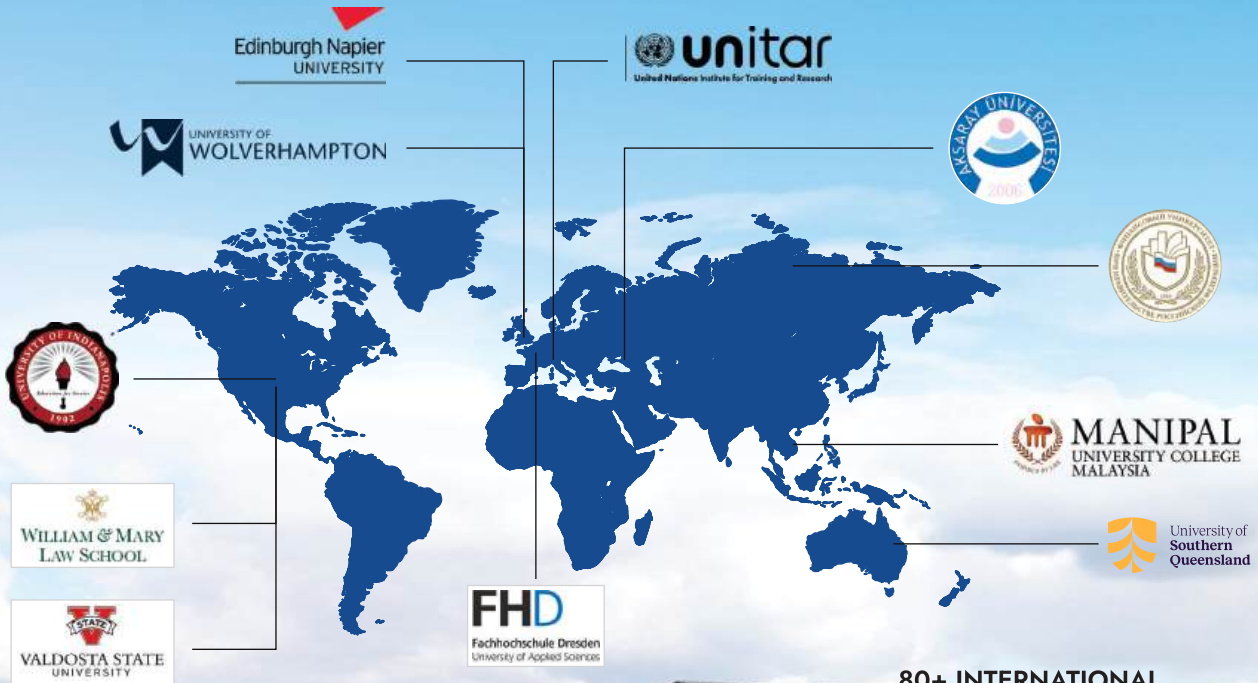
CENTRES OF EXCELLENCE

The Centres of Excellence epitomizes a group dedicated to providing leadership, best practices, research, support, and training within a specific domain, where the highest standards are meticulously maintained. Consequently, our Centres of Excellence are fueled and propelled by innovation at Alliance University, envisioned as a pivotal hub fostering collaborative partnerships with industry, government, academia, and other research institutions. Advanced CoEs are established with Industry Collaborations such as Apple, AR/VR (Unity), Robotics (Wefaa & ABB), Additive manufacturing, Computer Vision (Proglint) and many more.



INTERNATIONALISATION

Through a rich tapestry of articulation agreements with prestigious global universities, Alliance University propels students towards international excellence, nurturing their transformation into astute global citizens.



80+ INTERNATIONAL LINKAGES ACROSS THE GLOBE



WHY PH.D. AT ALLIANCE UNIVERSITY?

- Research fellowship of ₹35,000 per month and a contingency grant of ₹25,000 per year for full-time scholars.
- ₹1 lakh funding support on case by case basis once during the programme for attending International Conferences / Seminars.
- ₹30,000 per year funding support for attending national workshops if scholar is not availing any funding support from the agency.
- Facility for transfer of research scholars from other universities or research institutions to Alliance University and vice-versa.
- Specific provisions and relaxations with respect to women research scholars and specially-abled persons.
- Extensive interaction and guidance with luminaries including 40+ Ivy League supervisors and faculty listed among top 2% scientists.
- ₹10 Crores revolving fund for entrepreneurial initiatives.
- Centres of Excellence, fostering innovation and cutting-edge research.
- Research projects worth ₹5+ Crores from government and non-government agencies.
- Central Instrumentation Facility - AU-STIC established to serve as the cornerstone of scientific advancement offering researchers access to state-of-the-art equipments.
- Access to high-impact factor scholarly journal articles for literature reviews is facilitated through subscribed databases such as IEEE, Scopus, Scival, EBSCO, Derwent, Case Centre, and Harvard cases.

WHY POSTDOC AT ALLIANCE UNIVERSITY?

- **In-depth Research Exploration:** Conduct specialized research under the guidance of experienced mentors who foster intellectual growth and innovation.
- **Networking Opportunities:** Connect with fellow researchers, institutions, and industries to expand professional networks and career prospects.
- **Competitive Fellowship:** Receive a monthly stipend ranging from ₹75,000 to ₹1,10,000.
- **Additional Allowances:** Funding support for high-end research facilities and travel.
- **Campus Access:** Utilize state-of-the-art campus resources and infrastructure.
- **Interdisciplinary Work Environment:** Engage in a highly collaborative and cross-disciplinary research setting.
- **Mentorship Role:** Gain valuable experience by mentoring bright students and guiding future researchers.



WHY?

ELIGIBILITY - PH.D.

- Applicants holding a master's degree with minimum 55% marks or equivalent grade in a point scale as may be prescribed by the UGC from time to time, wherever the grading system is followed.
- Applicants whose result of the final examination of a programme leading to master's degree is awaited can be given provisional admission if he / she fulfils other requirements for admission. After the provisional admission the candidate will be required to furnish proof of completing master's degree with minimum of 55% marks within three months from admission failing which his / her admission will be cancelled.
- Applicants holding foreign Degree's equivalent to that of a Master's degree study with minimum 55% marks or equivalent grade in a point scale as may be prescribed by the UGC from time to time, wherever grading system is followed; Provided that applicants with a foreign Degrees shall be admitted to the Ph.D. programme, subject to clearance by the Equivalence Committee of Alliance University.
- Applicants having completed M.Phil. Coursework with a minimum 55% marks in aggregate or its equivalent grade, in the UGC point scale and those candidates who having their M.Phil. Dissertation evaluated, but viva-voce is pending, may also be admitted to the Ph.D. programme.
- Applicants possessing a degree, approved as equivalent to the M.Phil. Degree in India, obtained from a foreign Educational Institution accredited by the UGC if candidates with a degree from a foreign Institution shall be admitted to the Ph.D. programme, subject to the clearance by the Equivalence Committee of Alliance University.
- Admission of candidates belonging to the SC/ST/OBC, or other reserved categories shall be governed by the Karnataka State Rules in this regard, from time to time.
- Students from a four-year undergraduate programme (with Honors) can enroll directly if they have scored 75% or above, with a 5% relaxation for specified categories as per UGC regulations. Those who have scored between 55% and 75% may qualify after completing either a one-year master's programme or a bridging course of 36-40 credits. (Refer National Credit Framework NCrF 2024).
- For students from a three-year undergraduate programme, Ph.D. eligibility requires the completion of a bridging programme of 36-40 credits along with the necessary coursework. (Refer National Credit Framework NCrF 2024).

ELIGIBILITY - POSTDOCTORAL

- Should have completed Ph.D. programme within last five years in relevant discipline from the date of application.
- Minimum 5 publications in Q1 and Q2 journals with at least 2 publications as first author.
- Minimum H-index of 5 and a consistent publication track records.
- Prior research experience is preferable.

EMINENT DOCTORAL AND POSTDOCTORAL FACULTIES

LISTED AS TOP 2% SCIENTIST IN THE WORLD BY STANFORD UNIVERSITY



DR. JYOTISHKUMAR
PARAMESWARANPILLAI
Areas of Research
Sustainable Materials &
Polymer Matrix Composites
Rank 55,584
H-index 44



DR. RAJESHKUMAR
LAKSHMINARASIMHAN
Areas of Research
Sustainable Materials &
Polymer Matrix Composites
Rank 83,184
H-index 31



DR. INDRAN
SUYAMBULINGAM
Areas of Research
Sustainable Materials &
Polymer Matrix Composites
Rank 1,41,841
H-index 29



DR. P. SENTHAMARAIKANNAN
Areas of Research
Sustainable Materials &
Polymer Matrix Composites
Rank 92,563
H-index 33



DR. KIRAN SHAHAPURKAR
Areas of Research
Polymer Composites &
Sustainable Materials
Rank 1,64,225
H-index 23



DR. CHARANJEET SINGH
Areas of Research
Functional Nano/Micro Materials;
Microwave Absorber, Electromagnetic Shielding
Rank 186003
H-index 42



DR. JAYA PRAKASH
Areas of Research
Artificial Intelligence & Image Processing
Rank-9933
H-index 17



DR. ARINDAM DAS
Area of Research
Cultural Studies



DR. SYED ALAY HASHIM
Areas of Research
Aircraft & Rocket Propulsion



DR. RADHIKA CHANDANKARE
Area of Research
Industrial Biotechnology



DR. MUKUL SAXENA
Areas of Research
Climate change, Environmental
Policy & Sustainability



DR. SUBHRADEV SEN
Area of Research
Distribution Theory



DR. C VENKATESH
Areas of Research
**Polymer & Metal
Matrix Composites
Additive Manufacturing
& Mathematical
Modelling**



DR. SRIKANTH ITAPU
Areas of Research
**Semiconductor Materials
& Devices**



DR. USHA ARCOT
Area of Research
Graph Theory



DR. KAVITHA R GOWDA
Areas of Research
**Marketing
& Consumer Behavior**



DR. NEETU TALREJA
Areas of Research
**Nano Material
& Nano bioscience**



DR. GGS PRADEEP
Areas of Research
**Machine Learning
Deep Learning & IoT**



DR. SHEILA MAHAPATRA
Areas of Research
**Power System Optimization
& Energy Economics
& Sustainability**



DR. RAY TITUS
Area of Research
Marketing



DR. PRATIMA VERMA
Areas of Research
**Organizational Behavior
& Human Resource
Management**



DR. VIVEKANAND
Areas of Research
**Organizational Behavior
& Human Resource
Management**



DR. REEBA KORAH
Areas of Research
**VLSI, Image Processing
& Wireless Sensor Network**

RESEARCH AND PUBLICATION PERFORMANCE INDICATORS

Research plays a critical role in both knowledge inventory and transformation at various levels in any growing economy.

1772 SCOPUS PUBLICATIONS

a testament to the depth and breadth of our scholarly output

7832 CITATIONS | 41 H-INDEX

4.2 CITATIONS PER PAPER (AVERAGE)

are making a substantial impact in the academic community and beyond

QUARTILE 1 AND 2: 65% ARTICLES

60% OF PUBLICATIONS

in 2024 cited by top 10 percent journals

1.93 FIELD-WEIGHTED CITATION IMPACT (FWCI)

reflects the quality and impact of our research publications

34% PAPERS

with international collaboration



*as on January 27th, 2025

COURSEWORK

ALLIANCE UNIVERSITY HAS WELL-DEFINED COURSEWORK THAT ALIGNS WITH THE UGC GUIDELINES

UNIVERSITY CORE COURSES

- Research and Publication Ethics • Learning and Development • Academic Writing

PROGRAMME CORE COURSES

- Research Methodology • Seminar Paper/Technical Paper/Directed and Elective courses

COURSERA COURSES

- Access to numerous courses in Coursera for blended learning

OPEN ELECTIVE COURSE

“Solving for Bharat”, offered by Mr. Nagaraja Prakasam

Project-based learning with entrepreneurial and society conscious approach

Research scholars define a problem statement with societal impact, aligned with SDG goals or entrepreneurial initiatives.

PH.D. PROGRAMMES OFFERED

FACULTY OF MANAGEMENT STUDIES

ALLIANCE SCHOOL OF BUSINESS

PH.D. IN MANAGEMENT

The programme promotes learning and research activities that allow doctoral students to master theory and research relevant to their source discipline and specific research areas.

AREAS OF RESEARCH

- Finance and Accounting
- Marketing
- Operations Management and Information Systems
- Organizational Behaviour and Human Resource Management
- General Management and International Business



FACULTY OF LAW AND POLICY STUDIES

ALLIANCE SCHOOL OF LAW

PH.D. IN LAW

As the field of law is dynamic, there is a greater need to undertake research. Since law research is multidimensional and interdisciplinary, the programme provides excellent academic support with experienced faculty that facilitates researchers in making significant contributions to their areas of research.

AREAS OF RESEARCH

- Alternative Dispute Resolution (ADR)
- Constitutional and Administrative Law
- Corporate and Commercial Law
- Criminal Law and Security Law
- Cyber and Technology Law
- Intellectual Property Law
- LGBTQ Rights • Women and Child Rights
- Climate Change and Sustainability
- Sustainable Development Goals
- Tech and AI Policy • Viksit Bharat 2047



CoE IN PUBLIC POLICY, SUSTAINABILITY, AND ESG RESEARCH

PH.D. IN PUBLIC POLICY

To create and support an environment of rigorous, systematic, and scientific evidence-based research with the integration of social sciences and allied disciplines in the field of ESG, sustainability, and public policy making and, foster a culture of sustainable and inclusive policy to create social change.

AREAS OF RESEARCH

- Economics and Public Policy
- Climate Justice and Sustainability
- ESG and Business Sustainability
- Social Policy
- Business Governance and Society
- International Governance
- Sustainability
- Disaster Management
- Psephology and Elections
- Policy and Politics



FACULTY OF ENGINEERING AND TECHNOLOGY

ALLIANCE SCHOOL OF APPLIED ENGINEERING

PH.D. IN ENGINEERING AND TECHNOLOGY

The programme is laser-focused on applied research coupled with unrelenting theory-based investigation leading to novel reviews of prevailing work, or an original analysis of cutting-edge research problems and phenomena to enhance the knowledge of research worldwide.

AREAS OF RESEARCH

AEROSPACE ENGINEERING

- Aerodynamics
- Aerospace Structures
- Drone Technologies
- Propulsion

CIVIL ENGINEERING

- Structural Engineering
- Geotechnical Engineering
- Nature Based Solutions

ELECTRICAL AND ELECTRONICS ENGINEERING

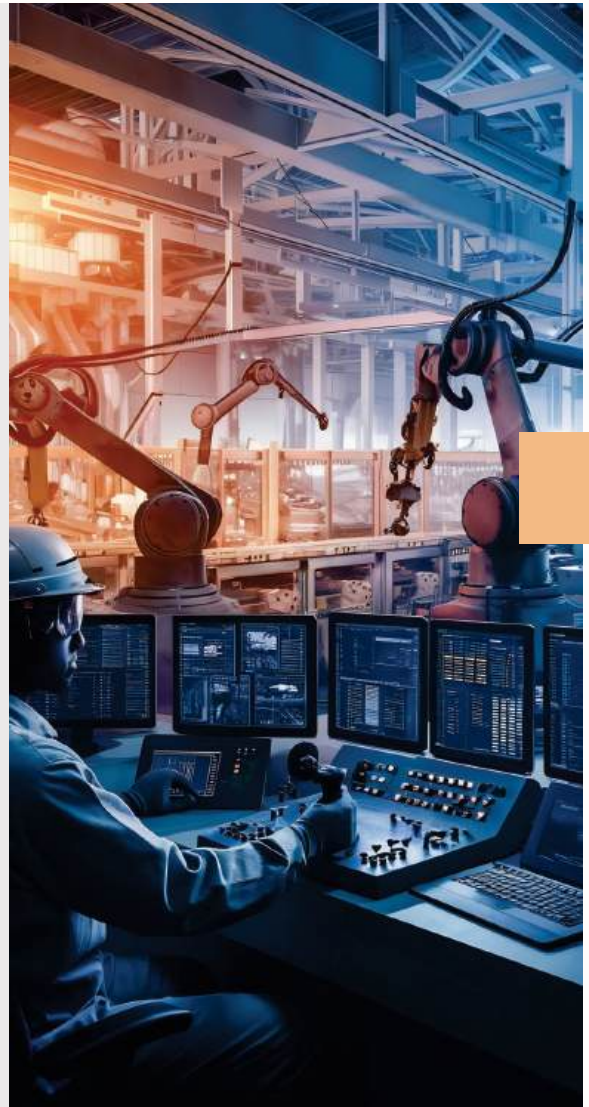
- Power Systems
- Power Electronics
- Energy Engineering

ELECTRONICS AND COMMUNICATION ENGINEERING

- Medical and Optical Imaging
- Nano Electronics and Device Modeling
- Smart Healthcare Systems
- Sensors and Adhoc Networks
- VLSI and Embedded Systems
- Robotics and Automation
- Image Processing and Pattern Recognition
- Terrestrial Communications
- Radar and Satellite Communications
- IoT, Industry 4.0, and Beyond
- Innovation in 5G/6G and Beyond

MECHANICAL ENGINEERING

- Materials and Metallurgy
- Thermal Engineering
- Design Engineering
- Nanotechnology



FACULTY OF ENGINEERING AND TECHNOLOGY

PH.D. IN BIOTECHNOLOGY

The Ph.D. in Biotechnology programme at the School of Applied Engineering offers an interdisciplinary research framework designed to address global challenges through innovative and applied research. This programme fosters intellectual growth, hands-on learning, and impactful discoveries in biotechnology.

AREAS OF RESEARCH

- Plant Sciences
- Disease and Drugs
- Biodiversity Studies
- Microbiology and Industrial Biotechnology
- NanoBiotechnology and Biomaterials
- Molecular Biology and Bioinformatics



ALLIANCE SCHOOL OF ADVANCED COMPUTING

PH.D. IN COMPUTER SCIENCE AND ENGINEERING

The programme, aligned with the Sustainable Development Goals, empowers researchers to push the boundaries of innovation in AI/ML, Data Science, Cyber Security, Cloud Computing, and AIoT (Artificial Intelligence of Things), while also providing an inclusive platform to explore innovative solutions across various disciplines.

AREAS OF RESEARCH

- AI / ML
- Data Science
- Cyber Security
- AIoT
- Cloud Computing
- Computer Vision
- Immersive Technologies and Computational Intelligence



FACULTY OF LIBERAL ARTS AND SCIENCES

ALLIANCE SCHOOL OF DESIGN

PH.D. IN TRANSDISCIPLINARY DESIGN

Ph.D. in Transdisciplinary Design is an advanced educational pathway aimed at cultivating scholars who can navigate and integrate multiple disciplines to address complex, real-world problems. This programme is designed to equip students with the skills, knowledge, and mindset necessary to transcend traditional academic boundaries and develop innovative solutions that are both practical and impactful.

AREAS OF RESEARCH

- Sustainability
- Humanizing Technology
- Urban Planning and Design
- Social Innovation
- Healthcare Innovation
- Neurodesign



ALLIANCE SCHOOL OF ECONOMICS

PH.D. IN ECONOMICS

The programme promotes learning and research activities that allow doctoral students to develop expertise in skills relevant to their area of research interest, leading to contributing to theory and empirical literature in economics, thereby preparing students for a career in academia or research positions in the industry.

AREAS OF RESEARCH

- Applied Microeconomic Theory
- Macroeconomics
- International Economics
- Labour Economics
- Applied Econometrics



ALLIANCE SCHOOL OF PERFORMING, VISUAL AND CREATIVE ARTS

PH.D. IN PERFORMING ARTS

A Ph.D. in Performing Arts is a research-oriented doctoral programme designed for individuals seeking advanced scholarly and practical understanding of performance traditions, techniques, history, aesthetics, and theory. It blends academic research with creative practice, fostering scholars, educators, and practitioners who contribute to the field through original research.

AREAS OF RESEARCH

- Indian Classical Dance
- Indian Classical Music



CENTRE OF EXCELLENCE IN INDIAN KNOWLEDGE SYSTEM

PH.D. IN INDIC STUDIES

A Ph.D. in Indic Studies is an interdisciplinary research programme focused on the comprehensive exploration of Indian civilization, including its philosophy, literature, art, science, culture, and knowledge systems. The programme encourages scholarly inquiry into Bharatiya traditions, texts, performing and visual arts, and socio-cultural thought, fostering a deep understanding of India's intellectual heritage from both traditional and contemporary perspectives.

AREAS OF RESEARCH

- Epigraphy and Manuscriptology
- Numismatics • South Asian Art Forms
- Indian Mathematics and Astronomy
- Folklore Studies • Vedic Culture
- Indian Medicine
- Indian Temple Architecture
- Yoga and Mental Health
- Sculpture and Iconography



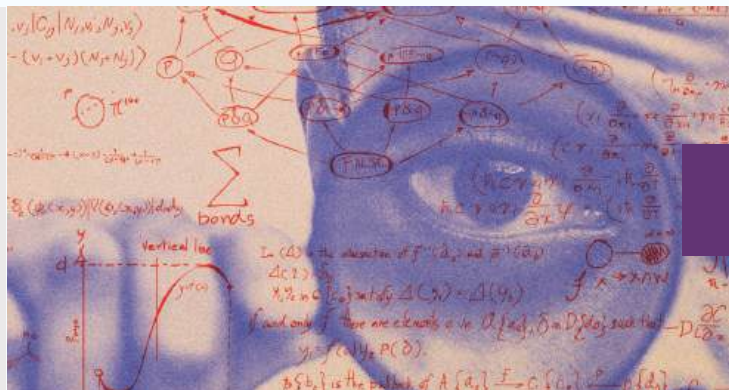
ALLIANCE SCHOOL OF SCIENCES

PH.D. IN APPLIED MATHEMATICS

The programme enables students to learn new methods in research to predict the observed, and unobserved phenomena and find solutions to real-world problems. In today's world, new challenges and problems arising in all fields require solutions that are precise through numerical methods that involve differential equations, statistics, numerical methods, and analysis.

AREAS OF RESEARCH

- General Topology
- Fractional Calculus
- Graph Theory
- Applied Statistics
- Fluid Dynamics
- Numerical Methods
- Distribution Theory
- Machine Learning
- Differential Equations
- Combinatorics
- Stochastic Processes
- Artificial Intelligence
- Nonlinear Dynamics
- Discrete Mathematics
- Reliability
- Big Data Analytics



PH.D. IN SCIENCES

The programme offers a multidisciplinary approach to research studies and routes students to academic training that transcends beyond disciplinary boundaries in finding solutions to real-world problems. Students get involved in research that is technologically relevant and fundamentally essential to deliver impactful results.

AREAS OF RESEARCH

- Physics
- Chemistry



ALLIANCE SCHOOL OF LIBERAL ARTS

PH.D. IN LIBERAL ARTS

At the crossroads of multiple disciplines, this programme allows students to traverse through diverse fields of art, language, history, politics, and social sciences cutting across the traditional academic structure. The programme cultivates the curiosity to observe and create innovative ways of exhibiting your research and knowledge.

AREAS OF RESEARCH

- Political Science
- Media Studies
- Psychology
- Sociology
- English
- Kannada
- Hindi
- Philosophy
- Cultural Studies



FACULTY OF DOCTORAL STUDIES

PH.D. IN VISTA (VENTURE INNOVATION FOR SOCIAL TRANSFORMATION & ADVANCEMENT)

Ph.D. in VISTA (Venture Innovation for Social Transformation & Advancement) at Alliance University transforms doctoral research into impactful ventures across Business, Law, Liberal Arts, and Engineering. This unique programme bridges academic research with entrepreneurial innovation, encourages inter-disciplinary pursuits enabling scholars to convert their specialized knowledge into sustainable solutions for complex societal challenges.

PROGRAM OBJECTIVES

- To cultivate research-driven entrepreneurship by enabling doctoral scholars to transform their interdisciplinary research into viable ventures that address complex societal challenges and create sustainable impact.
- To foster cross-disciplinary innovation by facilitating collaboration between different domains but not limited to Business, Law, Liberal Arts, and Engineering through a dual supervision model and integrated research approaches.
- To develop scholarly entrepreneurs capable of identifying critical societal problems, conducting rigorous academic research, and translating research outcomes into practical, market-ready solutions aligned with SDG goals.

RESEARCH HIGHLIGHTS

- Extensive 1 year Coursework including research-based courses and essentials of entrepreneurship.
- "Solving for Bharat" university elective course is mandatory for Ph.D. VISTA scholars offered by Mr. Nagaraja Prakasham (Angel Investor).
- Venture-based domain-specific courses beyond the scholar's core domain support interdisciplinary development.
- Dual supervision model with primary and co-supervisors from different disciplines for Cross-disciplinary venture areas.
- Multi-disciplinary, venture-based research culminating in separate degrees for all scholars in a venture.
- Monthly fellowship of ₹35,000 plus applicable benefits for full-time scholars with Seed Fund and Incubation Support.
- Technical and commercial collaborations based on Open Innovation principles.
- Ph.D. awarded based on successful completion of coursework, qualifying examination, and original research and/or venture creation.



FACULTY OF DOCTORAL STUDIES

POSTDOC IN DESIGNING A SUSTAINABLE ENTREPRENEURIAL FRAMEWORK FOR FUTURE CHALLENGES: A "BACK TO BHARAT" PERSPECTIVE

This postdoctoral research aims to design a sustainable entrepreneurship framework grounded in the principles outlined in Back to Bharat, ensuring long-term economic resilience and environmental sustainability. The Postdoc shall be mentored by Mr. Nagaraja Prakasam himself, a renowned author, angel investor, and mentor.

PROGRAM OBJECTIVES

- To integrate Back to Bharat principles with modern entrepreneurial strategies for sustainability.
- To analyze the impact of localized, self-sufficient business models on economic and environmental resilience.
- To develop a policy-driven framework for fostering sustainable entrepreneurship in India and other emerging economies.
- To incorporate green finance, circular economy principles, and digital innovations into sustainable entrepreneurial models.

ELIGIBILITY

- Ph.D. in Entrepreneurship, Business Management, Sustainability Studies, or a related field (completed within the last five years).
- Minimum five publications in Q1/Q2 journals (at least two as the first author).
- H-index of at least 5 and a strong research track record.
- Prior experience in entrepreneurship, sustainability, or policy development is preferable.

FELLOWSHIP & RESEARCH ENVIRONMENT

- Monthly stipend: ₹ 75,000 - ₹ 1,10,000.
- Additional research funding for high-end facilities, field studies, and travel.
- Access to cutting-edge campus resources and interdisciplinary collaboration.
- Mentorship opportunities to guide emerging researchers and entrepreneurs.



COE | AU-SOPHISTICATED TESTING AND INSTRUMENTATION CENTRE

X-RAY DIFFRACTOMETER

The X-ray diffractometer provides high-quality diffraction data for powders as well as films. It is utilized to identify crystal structure, sample orientation, and phase composition.

Anton Paar X-ray diffractometer: XRDynamic 500

Specifications

X-ray source

- Source type: Primux 3000
- X-ray generator: Up to 3 kW
- Tube voltage/current: 20 kV to 60 kV/2 mA to 50 mA

Goniometer

- Configuration: Vertical Theta/Theta geometry
- Measurement radius: 360 or 400 mm
- Maximum usable angular range: -95° – 162.5° 2θ
- Minimum step size: 0.0001°
- 2θ linearity: $\leq 0.01^{\circ}$
- Maximum angular speed: $15^{\circ}/\text{sec}$
- Maximum angular resolution: 0.021°
- (FWHM of 1st LaB_6 peak)



COE | AU-SOPHISTICATED TESTING AND INSTRUMENTATION CENTRE

SCANNING ELECTRON MICROSCOPE

Scanning electron microscope with energy dispersive X-ray spectroscopy (SEM-EDXS) provides information on the morphology and composition of the samples.

JCM-7000 Benchtop Scanning Electron Microscope

Specifications

- Landing voltage – Selected from software interface: 15 kV/10 kV/5 kV
- Electron gun – Tungsten filament
- Magnification x 20,000



DYNAMIC LIGHT SCATTERING

Dynamic Light Scattering Instrument: Litesizer DLS 500 provides particle size characterization ranging from the nanometer to the micrometer scale and can also be utilized for determining zeta potential.

Litesizer DLS 500

Specifications

Particle size specifications

- Measurement principle: Dynamic Light Scattering (DLS)
- Measuring range: 0.3 nm to 10 μm (particle diameter)
- Measurement angles (in degrees): 15, 90 and 175
- Minimum sample volume: 12 μL

Goniometer

- Measuring principle: Electrophoretic Light Scattering (ELS)
- Measuring range: $\geq \pm 1000$ mV
- Size range 3.8 nm to 100 μm (diameter)
- Minimum sample volume: 50 μL
- Maximum sample conductivity: 200 mS/cm
- Measuring principle: Static light Scattering (SLS)
- Measuring range (mass): 980 Da to 20 MDa
- Measuring range (particle size): up to 40 nm (diameter)



COE | AU-SOPHISTICATED TESTING AND INSTRUMENTATION CENTRE

HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY

High-Performance Liquid Chromatography (HPLC) is a powerful analytical technique used to separate, identify, and quantify components in a mixture. It is widely applied in pharmaceuticals, food safety, and environmental monitoring for quality control and analysis of complex samples. HPLC can separate a diverse array of compounds, including small organic molecules like drugs and pesticides, biomolecules such as proteins and peptides, and even some polymers and inorganic ions.

Shimadzu's P series HPLC System Specifications

- Detector: RID & PDA
- Light source: Deuterium (2D) lamp
- Wavelength range: 190-800 nm
- Operating temperature range: 4-35 °C
- Solvent delivery System: Parallel type double plunger
- Plunger capacity: 10 mL
- Maximum Operating Pressure: 40 Mpa
- Gradient type: High pressure mixing/low pressure mixing
- Analytical HPLC
- Manually operated (No autosampler)



HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY

The UV-visible spectrometer provides information on the properties of materials and their interactions with light.

Shimadzu UV-1800

Specifications

- Wavelength range: 190 – 1100 nm
- Spectral bandwidth: 1 nm (190 – 1100 nm)
- Wavelength display: 0.1 nm increments
- Wavelength accuracy:
 - ±0.1 nm at 656.1 nm D2
 - ±0.3 nm (190 to 1100 nm)
- Wavelength repeatability: ±0.1 nm



UNIVERSAL TESTING MACHINE

Asian Test Equipments

Specifications

- Load capacity: 0 to 500 kN
- Least count: 0.1 kN
- Wavelength display: 0.1 mm increments
- Speed: 5 to 100 mm/min
- Traverse length: 900 mm
- Accuracy: $\pm 1\%$
- In-built computerised data acquisition system



PIN-ON-DISC TRIBOMETER

DUCOM™

Specifications

- Normal load – 5 to 100 N
- Wear track diameter: 10 to 350 mm
- Disc speed: 100 – 2000 rpm
- Pin diameter: 6, 8 and 10 mm
- Square samples: 8 x 8 square
- In-built computerised data acquisition system



DROP WEIGHT IMPACT TESTING MACHINE

Globtech India

Specifications

- Drop height: 0.5 to 2 meters
- Maximum velocity: 6 m/s
- Ball diameter: 8, 10 mm
- Maximum sample size: 200 x 200 mm
- Maximum weight: 100 kg



OPTICAL MICROSCOPE

LABBYSCOPES

Specifications

- Light Source Type: LED
- Material: Aluminum alloy
- Real Angle of View: 45 Degrees
- Voltage: 3 Volts



HOW TO APPLY

Follow these steps to apply for the Doctoral or Postdoc Programme at Alliance University:

APPLY ONLINE:

Submit your application form online through the official university website. www.alliance.edu.in

APPLICATION FORM FEE:

Pay a non-refundable fee of ₹ 3,000/- (Rupees Three Thousand only).

ADMISSION PROCESS:

Admission is strictly based on merit and includes:

- **ALLIANCE RESEARCH APTITUDE TEST (ARAT):**

A comprehensive entrance examination.

- **PERSONAL INTERVIEW:**

- An evaluation of academic and professional journey.
- Research Synopsis Evaluation: Assessment of proposed dissertation work.
- Consideration of scholastic achievements, extracurricular records, and work experience to ensure a well-rounded selection.

- **FINAL SELECTION:**

The final decision will be based on the overall performance in the Admission Selection Process.

Take the next step toward advancing your academic and professional career with Alliance University!



CENTRAL LIBRARY AND RESEARCH SUPPORT SERVICES

The Central Library at Alliance University is a hub of knowledge, offering an extensive collection of academic resources to support learning and research excellence. With over **1 lakh print books**, **50 thousand e-books**, and subscriptions to more than 200 journals and magazines, the library provides scholars and students with a vast repository of knowledge.

Additionally, the Library grants access to over 50,000 online journals, along with a diverse repository of journal bound volumes, case studies, research articles, CDs/DVDs/VCDs, dissertations, theses, audiobooks, and student project reports. The Library also houses a distinguished special collection, including rare books, competitive examination materials, resources on the Indian Knowledge System, and the prestigious Mahatma Gandhi Collection.

RESEARCH SUPPORT SERVICES

The Library plays a pivotal role in fostering academic research through its comprehensive research support services. Scholars and researchers have access to a wide range of global databases, research databases, scholarly journals, citation and abstract databases, theses and dissertations, and multimedia resources. These invaluable tools empower researchers at every stage of their academic journey. With its vast collection, digital resources, and dedicated research support, the Central Library at Alliance University stands as a cornerstone of academic enrichment, providing an unparalleled knowledge ecosystem for students and scholars alike.

SCHOLARLY JOURNAL DATABASES



E-BOOKS COLLECTION



RESEARCH DATABASES



DATASETS / STATISTICAL ANALYSIS SOFTWARES



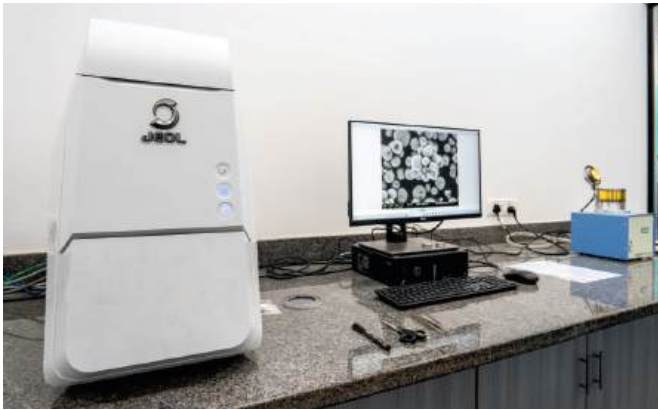
E-RESOURCES FOR LAW



PLAGIARISM DETECTION SOFTWARES



CoE AND RESEARCH



PROGRAMMES OFFERED



FACULTY OF MANAGEMENT STUDIES

ALLIANCE SCHOOL OF BUSINESS

BBA (Hons.) – Finance | Human Resource | International Business | Operations Management | Marketing | Business Analytics | FinTech
B.Com. (Hons.) – Accounting and Taxation | Finance Management | International Business | Marketing Management | Business Analytics | FinTech
MBA – Finance | Marketing | Operations | Human Resource | Business Analytics and AI | Digital Transformation |
Entrepreneurship and Family Business | Product Management
Ph.D. in Management – Finance | Marketing | Operations Management | Organizational Behaviour and Human Resource Management

ALLIANCE ASCENT COLLEGE

BBA (Hons.) – Marketing | Finance | Human Resource | Operations Management | Business Analytics | FinTech
MBA – Marketing | Finance | Human Resource | Information Systems and Operations Management | Business Analytics

ALLIANCE GLOBAL BUSINESS SCHOOL

BBA (Hons.) – Business Analytics | FinTech
MBA – Data Science and Gen AI | FinTech | International Marketing and Brand Management | Luxury and Fashion Management | Sports Management

ALLIANCE SCHOOL OF INNOVATION AND ENTREPRENEURSHIP

BBA (Hons.) in E-Commerce and Digital Marketing | **B. Com. (Hons.)** in FinTech with AI



FACULTY OF ENGINEERING AND TECHNOLOGY

ALLIANCE SCHOOL OF APPLIED ENGINEERING

B.Tech. in Aerospace Engineering – Aeronautics | Avionics | Unmanned Aerial Vehicles | Propulsion Systems
B.Tech. in Civil Engineering – Smart Cities | Environment and Sustainability | Construction Technology and Management
B.Tech. in Electrical and Electronics Engineering – Renewables Electric Vehicles
B.Tech. in Electronics and Communication Engineering – Artificial Intelligence and Machine Learning | Automotive Electronics | Biomedical Engineering | Embedded Systems and IoT | Entrepreneurship | Next Generation Communication System | Performing Arts and Creative Technologies | Robotics and Automation | Semiconductor Technology
B.Tech. in Mechanical Engineering – Thermal Engineering | Design Engineering | Manufacturing Engineering
B.Tech. in Biotechnology
B.Tech. in Production Engineering – Production and Industrial Engineering | Robotics | Digital Manufacturing
M.Tech. in VLSI and Embedded Systems
Ph.D. in Biotechnology – Plant Sciences | Disease and Drug Research | Biodiversity Studies | Microbiology and Industrial Biotechnology | Nanobiotechnology and Biomaterials | Molecular Biology and Bioinformatics
Ph.D. in Engineering and Technology – Aerospace Engineering | Civil Engineering | Electrical and Electronics Engineering | Electronics and Communication Engineering | Mechanical Engineering

ALLIANCE SCHOOL OF ADVANCED COMPUTING

B.Tech. in Artificial Intelligence and Data Science | **B.Tech. in Artificial Intelligence and Machine Learning**
B.Tech. in Computer Science and Engineering – AI and Future Technologies | Blockchain Technologies | Cloud Computing | Cyber Security | DevOps | Full Stack Development | IoT | Software Product Engineering
B.Tech. in Information Technology – Augmented Reality and Virtual Reality | Data Analytics
BCA (Hons.) – Data Science | AI/ML | Game Development
MCA – Generative AI | MCA General | Game Development | Data Science
M.Tech. in Artificial Intelligence and Data Science | **M.Tech. in Computer Science and Engineering**
Ph.D. in Computer Science and Engineering – AI / ML | AIoT | Data Science | Cyber Security | Cloud Computing | Computer Vision | Immersive Technologies and Computational Intelligence



FACULTY OF LAW AND POLICY STUDIES

ALLIANCE SCHOOL OF LAW

B.A. LL. B. (Hons.) / B.B.A. LL. B. (Hons.) – Intellectual Property Rights Law | Business Law | International Law | Constitutional Law | Criminal Law
Bachelor of Law (LL. B.)

Master of Law (LL. M.) – IT and Data Protection Law | Corporate Law | Climate Change and Sustainability | Trade and Commercial Laws | Crime and Forensics Law | Human Rights Law | Intellectual Property Laws

Ph.D. in Law – Alternative Dispute Resolution (ADR) | Constitutional and Administrative Law | Corporate and Commercial Law | Criminal Law and Security Law | Cyber and Technology Law | Intellectual Property Law | LGBTQ Rights | Climate Change and Sustainability | Sustainable Development Goals | Women and Child Rights

CENTRE OF EXCELLENCE IN PUBLIC POLICY, SUSTAINABILITY, AND ESG RESEARCH

Master of Public Policy | Ph.D. in Public Policy



FACULTY OF LIBERAL ARTS AND SCIENCES

ALLIANCE SCHOOL OF DESIGN

Bachelor of Design – Visual and Communication | User Experience and Interaction | Product | Fashion | Interior | Animation Film

Master of Design - Transdisciplinary Design | Ph.D. in Transdisciplinary Design

ALLIANCE SCHOOL OF ECONOMICS

Ph.D. in Economics

ALLIANCE SCHOOL OF FILM AND MEDIA STUDIES

B. Sc. (Hons.) – Film and Television Production

ALLIANCE SCHOOL OF LIBERAL ARTS

B.A. (Hons.) – Economics | English | Literary and Cultural Studies | Media Studies | Philosophy | Political Science | Sociology

B. Sc. (Hons.) – Applied Mathematics | Computer Science | Data Science | Psychology | Statistics

Bachelor of Fine Arts – Painting and Sculpture

Bachelor of Visual Arts

M.A. in English (Creative Writing)

Ph.D. in Liberal Arts

ALLIANCE SCHOOL OF SCIENCES

B. Sc. (Hons.) – Applied Mathematics | Chemistry | Physics

M. Sc. – Data Science | Ph.D. in Applied Mathematics | Ph.D. in Sciences

ALLIANCE SCHOOL OF PERFORMING, VISUAL AND CREATIVE ARTS

Master of Performing Arts (MPA) | Diploma in Performing Arts (DPA)

Ph.D. in Performing Arts | Ph.D. in Indic Studies



FACULTY OF APPLIED HEALTH SCIENCES

ALLIANCE SCHOOL OF ALLIED HEALTH SCIENCES

B.Sc. (Hons.) – Cardiovascular Technology | Respiratory Therapy | Operation Theatre and Anaesthesia Technology | Medical Laboratory Technology

