Creating a University of global eminence through **Plaksha's three key pillars**

1. **Reimagining technology education**
   Focused on **interdisciplinary technology curriculum**, integrating **liberal arts** and design with **experiential learning**

2. **Enabling industry innovation & start-ups**
   Instilling **entrepreneurial mindset**, mentoring start-ups and creating an **innovation ecosystem**

3. **Addressing grand challenges through research**
   **Thematic research centers** with industry and government collaboration, solving **grand challenges** in India and the world
Plaksha is founded and envisioned by a community of business leaders, entrepreneurs via collective philanthropy.

Click to hear few Founders describe the vision.
Keen to build a **research career** at the **cutting edge of technology** and associated interdisciplinary areas?

- **Mentorship** by reputed faculty
- Opportunity to conduct **interdisciplinary research in emerging Grand Challenges** and SDGs
- Opportunity to work with peers in **global partner institutions** through **research internship**
- Environment to grow **entrepreneurial skills** and vision through mentorship from successful entrepreneurs
- **Competitive stipend** and annual grants to attend national and international conferences
- Unique opportunity to **create labs and research centers from ground-up**
Support of 100+ corporates, academicians and philanthropists

CXOs and leading entrepreneurs - Invested in the success of students and their growth. Founders are a part of the functional committees e.g. admissions, infrastructure, marketing.
Distinguished Global Academic Advisory Board

Dr. Abhijit Banerjee
Co-Founder, J-PAL; Professor of Economics, MIT; Nobel Laureate

Dr. Anant Agarwal
CEO, edX; Professor of EECS, MIT

Dr. Arvind Raman
Senior Associate Dean for Faculty; Purdue University

Dr. Ashish Nanda
Former Director of IIM Ahmedabad; Senior Lecturer, Harvard Business School

Dr. Howard Griffiths
Professor of Plant Ecology; Vice-Chancellor’s Special Advisor on India

Dr. Bijendra Nath Jain
Former Vice Chancellor, BITS Pilani; Former Deputy Dean, IIT Delhi

Dr. Frances Ligler
Professor, NC State and UNC Chapel Hill

Dr. Jennifer Cochran
Shriram Chair, Department of Bioengineering, Stanford University

Dr. Krishna Palepu
Senior Advisor to President, Harvard University; former Senior Associate Dean of Harvard Business School

Dr. Julia Ross
Dean of Engineering, Virginia Tech

Dr. Kaushik Basu
Former Chief Economist of World Bank; Professor of Economics & International Studies, Cornell University

Dr. Pankaj Jalote
Founding Director, IIIT Delhi

Dr. Rajesh Gupta
Qualcomm Endowed Chair, UC San Diego

Dr. Yannis C Yortsos
Dean of Viterbi School of Engineering, University of Southern California

Dr. Sharad Malik
Chair, Electrical Engineering, Princeton University

Dr. Sriram Rajamani
Managing Director, Microsoft Research Labs, India

Dr. Venky Narayananamurti
Benjamin Peirce Professor, Harvard University

Dr. Vijay Kumar
Nemirovsky Family Dean of Penn Engineering, University of Pennsylvania

Dr. Sanjay Sharma
Professor of Mechanical Engineering, MIT; VP of Open Learning, MIT
Partnerships with premier global institutions

- UC Berkeley
- Purdue University
- SRI International
- Cornell University
- UC San Diego
- IIT Bombay
- IIT Kanpur
- Indian Institute of Science
- PGIMER, Chandigarh
- IISER, Mohali
Faculty from Premier Institutions
Eminent academic leadership

**Chancellor**

Dr. Shankar Sastry  
Former Dean of Engineering, Professor of EECS, UC Berkeley

**Chief Academic Advisor**

Dr. B.L Ramakrishna  
Inaugural Director, Grand Challenges Scholars Program Network, National Academy of Engineering, USA  
Professor, Materials Science and Engineering, Arizona State University

**Honorary Distinguished Professor**

Dr. Uday Desai  
Founding Director, IIT Hyderabad  
Professor, Electrical Engineering Department, IIT Bombay

**Vice Chancellor**

Dr. Rudra Pratap  
Former Deputy Director, IISc Bangalore  
Chairman & co-founder, i2n Technologies Pvt Ltd.; Fellow of the National Academy of Engineering & National Academy of Sciences

**Dean Academics & Research**

Dr. Vishal Garg  
Founder Head and Professor, Centre for IT in Building Science, IIT Hyderabad

**Distinguished Visiting Professor**

Dr. M. Balakrishnan  
Dean (Post Graduate Studies & Research), IIT Delhi (2006-2009)  
Deputy Director (Faculty), IIT Delhi (2009-2012)  
Deputy Director (Strategy & Planning), IIT Delhi (2016-2019)
Full-time faculty

Dr. Srikant Srinivasan
Nanoelectronics, IoT systems
Ph.D. in Electrical & Computer Engineering, Purdue University, USA

Dr. Sunita Chauhan
Medical & Surgical Robotics, Automated Systems, Cyber Physical Systems
Ph.D & DIC Imperial College, UK

Dr. Saumya Jetley
Computer Vision & ML Algorithms
Ph.D. in Computer Vision & ML Algorithms, Univ. of Oxford

Dr. Saikat Chakraborty
Bioenergy, Computational Bioengineering
Ph.D. in Chemical Engineering, University of Houston, USA

Dr. Amit Sheth
Inclusive Design & Design Thinking
M.Phil. in Industrial Design Inclusive Design, IIT Bombay

Dr. Kriti Khanna
Financial Development, Macroeconomics
Ph.D. in Economics, University of Houston, USA

Dr. Rucha Joshi
Engineering Education, Tissue Engineering, Drug Delivery
Ph.D. in Biomedical Engineering, Purdue University, USA

Dr. Dhiraj Sinha
Social sciences
Ph.D. in Electrical Engineering, University of Cambridge, UK

Dr. Saikat Chakraborty
Bioenergy, Computational Bioengineering
Ph.D. in Chemical Engineering, University of Houston, USA

Dr. Amrik Sen
Applied Mathematics
Ph.D. in Applied Mathematics, University of Colorado, USA

Dr. Monika Sharma
Computational biophysics, bioinformatics
Ph.D. in Computational Natural Sciences, IIIT Hyderabad

Dr. Navjot Kaur
Point-of-Care & paper-based diagnostics, AMR surveillance networks
PhD in Chemical Engineering, IISc, Bengaluru

Dr. Manoj Kannan
Discipline-based education research
Ph.D. in Genetics, BITS Pilani

Dr. K Gopinath
Systems Research: OS, security
Ph.D., Stanford University, USA

Dr. Prashanth Suresh Kumar
Water Technology
Ph.D. Env. Biotechnology, Delft University of Technology, Netherlands

Dr. Sebastien Foucaud
Data Science, ML and AI Product Development
Ph.D., Astronomy & Astrophysics, Aix-Marseille University

Non-exhaustive list
Visiting faculty

**Dr. Jitesh Panchal**  
Associate Professor of Mechanical Engineering,  
**Purdue University**  
Ph.D. & M.S., **Georgia Tech**

**Dr. Rajeev Barua**  
Professor, Dept. of Electrical and Computer Engineering  
**University of Maryland**  
Ph.D. & M.S., **MIT**

**Kenwyn Smith**  
Professor, Organizational Behaviour,  
**University of Pennsylvania**

**Rachel Dzombak**  
Lecturer, **UC Berkeley** College of Engineering and  
**Haas School of Business**, Research Scientist, **Blum Center**  
for Developing Economies  
Ph.D. & M.S., **UC Berkeley**

**David Law**  
Director, Global Academic Programs,  
Sutardja Center for Entrepreneurship & Technology, **UC Berkeley**  
CEO, Venture Dojo  
MBA, **Arizona State University**

**Monojit Choudhary**  
Principal Researcher, **Microsoft Research Lab** India  
B.Tech and PhD, IIT Kharagpur

**Srikanth Velamakanni**  
Co-founder, Group Chief Executive & Vice-Chairman,  
**Fractal Analytics**

**Alexander Fred-Ojala**  
Technical Program Manager, Blockchain Xcelerator  
Sutardja Center for Entrepreneurship & Technology, **UC Berkeley**  
M.Sc. Mathematical Statistics, **Lund University**
Reimagining Student Life
Vibrant student life

- Collaborative workspaces
- Community initiatives
- Student clubs & societies
- Sports, recreation and wellness facilities
Sports, Recreation and Wellness

Sports & Recreation facilities
- Outdoor: Football, Volleyball, Tennis
- Indoor: Badminton, Basketball, Table tennis, Pool/Snooker
- Yoga and Gymnasium

Health & Wellness center
- 24*7 Health Center will be available for all students
- Health insurance for all students
- Tie-ups with nearby hospitals
- Mental health and counselling support for all students
Classrooms and collaboration spaces

Classrooms
- 60-seater for general classes
- 30 and 48 seaters for project work
- 250-seater MPH for guest lectures, seminars
- Auditorium (under construction)

Labs and Collaboration areas
- Teaching & Research labs
- Computer lab and Coding Cafe
- Teaching studio for hybrid learning
World-class campus

- 50 acre tech-enabled campus
- World class infrastructure
- Energy efficient and sustainable
- Living lab
- Comfortable air-conditioned hostel accommodation
- Coding cafe and maker spaces
Plaksha Campus – a living lab
Our tech-enabled campus encourages interaction and helps foster creativity
Centrally located & easily accessible

- 10 mins from Chandigarh International Airport
- 15 mins from several academic institutions
- 30 mins drive from Chandigarh city centre
Research Focus Area

Interdisciplinary.
5 Interdisciplinary research centers planned to be established

- Center for Clean Energy & Climate
- Center for Digital Agriculture
- Center for Digital Health
- Center for Water Security
- Core Labs
  - CRISPR-Cas Lab
  - IoT & Sensors Tech Lab
  - Robotics & Automated Vehicle Lab
  - Micro-Climate Lab
  - Clean Energy Lab
  - Water Technology Lab
  - Metaverse Lab
  - AI/ML/DS Lab (High Performance Cloud Computing)
Discipline-wise distribution of available PhD positions

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Research Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Biosystems Engineering &amp; Human Health</td>
<td>Center for Digital Health &amp; Center for Water Security</td>
</tr>
<tr>
<td>2 Robotics &amp; Deep Learning</td>
<td>Digital Terrascope &amp; Center for Digital Health</td>
</tr>
<tr>
<td>3 Computer Science &amp; AI/ ML</td>
<td>Digital Terrascope &amp; Center for Digital Health</td>
</tr>
<tr>
<td>4 Environment &amp; Clean Energy</td>
<td>Center for Clean Energy and Climate &amp; Center for Water Security</td>
</tr>
<tr>
<td>5 Humanities, Language &amp; Linguistics</td>
<td>Center for Thinking, Language &amp; Communication</td>
</tr>
</tbody>
</table>
### Biosystems Engineering & Human Health

#### Research Area
- Computational Bioengineering

#### Projects
- Bio-digital Twins, Algal Photobioreactors, Pulmonary Diseases and their therapy, Turing patterns in Biological Systems

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#### Research Area
- Diagnostics and surveillance technologies for antimicrobial resistance (AMR)

#### Projects
- AI-ML-based AMR prediction tool using antimicrobial susceptibility testing data, antimicrobial stewardship solution for poultry farms

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**Dr Saikat Chakraborty**  
Faculty Advisor Global Engagements (USA) & Professor

**Past Associations**
- Associate Professor, Indian Institute of Technology Kharagpur
- Post-doctoral Fellow, University of Texas Medical School, Houston, USA

*saikat.chakraborty@plaksha.edu.in*

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**Dr Navjot Kaur**  
Assistant Professor

**Past Associations**
- Research Scientist, Dr. Reddy’s Lab, Hyderabad, India
- Science Conversationalist at The Pseudo Doctor

*navjot.kaur@plaksha.edu.in*
Research Area
Assistive Medical Technology, Tissue Engineering, Drug Delivery, Injury Prevention, Engineering Education

Projects
Development of polymers for drug delivery, Personalized diabetic wound healing care, Sports Injury Prevention Mechanism, Tissue rehabilitation

Dr Rucha Joshi
Assistant Professor

Past Associations
• Assistant Professor of Teaching, Biomedical Engineering, UC Davis
• Post-Doctoral Researcher, Biomedical Engineering, Purdue University

rucha.joshi@plaksha.edu.in
Robotics & Deep Learning

**Research Area**
Medical Surgical Robotics, Intelligent Diagnostics, Medical wearables

**Projects**
Integrated intelligent active orthoses (esp. lower limb), Robotic muscles - sensors & actuators (Soft-robotics) for medical applications

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Dr Sunita Chauhan
Faculty Advisor Global Engagements (Europe & APAC) & Professor

Past Associations
- Director, Robotics and Mechatronics Engineering, Monash University, Australia
- Assoc. professor (Mechatronics & Design); Asst. prof. (Systems & Eng. Management), NTU, Singapore

sunita.chauhan@plaksha.edu.in

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Dr Srikant Srinivasan
Associate Dean Academics & Associate Professor

Past Associations
- Associate Dean (courses), IIT Mandi
- Adjunct Assistant Professor, Plant Sciences Institute, Iowa State University, USA
- Post-doctoral Fellow/ Data Scientist, Iowa State University, USA

srikant.srinivasan@plaksha.edu.in

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**Research Area**
Computer Vision; Machine Learning; Internet-of-Things

**Projects**
Image-based precision agriculture; Study of Human-environment interaction
Robotics & Deep Learning

Research Area
Robotics, Path planning, Multi-robot systems, Applied Machine Learning, Computer Vision and Perception

Projects
Integrated intelligent active orthoses (esp. lower limb), Robotic muscles - sensors & actuators (Soft-robotics) for medical applications

Dr Sandeep Manjanna
Assistant Professor

Past Associations
• Postdoctoral Researcher at GRASP Labs, University of Pennsylvania, USA.

sandeep.manjanna@plaksha.edu.in
### Computer Science & AI/ML

**Research Area**
- Data Privacy, Cyber security
- Applied AI, Fairness in AI

**Projects**
- Data Privacy for smart cities
- Cybersecurity of Financial systems/IndiaStack, etc.

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**Dr K Gopinath**
Professor

**Past Associations**
- Professor, Computer Science & Automation, Indian Institute of Science, Bangalore

**Email**
gopinath.kanchi@plaksha.edu.in

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**Research Area**
- Computational Neuroscience and Experimental Neuroscience
- Application of ML in Neuroscience and Neuroethology

**Projects**
- Integration of multiple sensory inputs in foraging behavior of insects.
- iophysical modelling. Track animal behavior.

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**Dr Subhasis Ray**
Assistant Professor

**Past Associations**
- Postdoctoral Fellow, NICHD, National Institutes of Health (NIH), Bethesda, USA
- Software Engineer, IBM India Pvt. Ltd., Kolkata, India

**Email**
subhasis.ray@plaksha.edu.in
**Environment & Clean Energy**

**Research Area**

High-Performance buildings, Urban heat Islands and Smart Homes,

**Research Area**

Sensors - electrochemical and/or optical

**Projects**

Electrochemical sensing for water security and point of care health; Optical sensors for heavy metal detection in water

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**Dr Vishal Garg**

Dean Academics & Research and Professor

Past Associations

- Founder Head and Professor, Centre for IT in Building Science, IIIT Hyderabad

vishal.garg@plaksha.edu.in

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**Dr Chaitanya Lekshmi Indira**

Associate Professor

Past Associations

- Associate Professor, CMRIT, Bengaluru
- Assistant Professor, AIMSR, Kochi
- Visiting Scientist, FBML, MIT, USA
- Postdoctoral Researcher, CNRS-National Nanotechnology Laboratory, Italy

chaitanya.indira@plaksha.edu.in
Environment & Clean Energy

**Research Area**
Fluid mechanics, heat transfer, Environmental flows, Urban microclimate and Thermal comfort

**Projects**
Urban heat island effect and its mitigation, Human thermal comfort by low energy means, Heat transfer enhancement in turbulent natural convection, Light and sound propagation in turbulent media.

Dr Shashikant Pawar
Assistant Professor

Past Associations
- Faculty member, Department of Mechanical Engineering, Don Bosco Institute of Technology, Mumbai.
- Research Associate, Fluid Mechanics Laboratory, IISc, Bangalore.
- Executive Engineer, Larsen & Toubro Ltd.

shashikant.pawar@plaksha.edu.in
5 Humanities, Language & Linguistics

**Research Area**
Indian Linguistics, AI for Manuscripts
Indic studies in consciousness research, rasa theory

**Projects**
Linguistic tradition in India and its current relevance, rasa theory and techno philosophy

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Dr K Gopinath
Professor

Past Associations
- Professor, Computer Science & Automation, Indian Institute of Science, Bangalore

[gopinath.kanchi@plaksha.edu.in](mailto:gopinath.kanchi@plaksha.edu.in)

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**Research Area**
Humanities, Philosophy of Language, Literature and Communication, STEM Pedagogy

**Projects**
Human Imagination and Creativity, Edtech and Stem education

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Dr Brainerd Prince
Associate Professor of Practice

Past Associations
- Research Dean, Ecole Hoteliere at Lavasa, Lavasa
- Research Tutor, Oxford Centre for Mission Studies, Oxford
- Research Fellow, Oxford Centre for Hindu Studies, Oxford

[brainerd.prince@plaksha.edu.in](mailto:brainerd.prince@plaksha.edu.in)
Reimagining Admission Process

Holistic. Beyond Grades.
Plaksha students are...

- Passionate about technology
- Have a creator-builder mindset
- Explore all facets of technology and innovate
- Aspire to be tech leaders, entrepreneurs, researchers, and problem solvers
Beyond grades - Three-stage holistic admissions process

Stage 1
Application form
- Statement of Research
- Letter of Reference (LOR)
- Academic records
- Artefacts of Extra-curricular activities

Stage 2
One on one interaction (online)
- An opportunity to know supervisors
- Tell us more about you, your interests & your experiences
- Some questions to understand your critical & lateral thinking and to assess your research interest

Stage 3
Showcase Day (in-person)
- Campus walk
- Learn about facilities and student life
- Written assignment to understand your research methodology and subject knowledge
- Face-to-face interview with prospective supervisor
PhD admissions at Plaksha

Eligibility

- Candidates with 1-year master's degree
- 2-year master's degree after 3-year bachelor's degree
- 4-year bachelor's degree in Engineering, Science, Humanities and others

Admission Procedure

- Candidate profile and past work
- Research interests
- Research topic is relevant

Getting an offer

- Candidates qualified in GATE/UGC NET/CSIT-UGC NET/CEED/JAM/DBT-JRF or any other national test are exempted from admission test
- Candidates without national test scores are admitted into the PRF program with the ability of converting it to PhD after six months

Candidates may however apply at any time throughout the year. Nonetheless, the applications are normally processed in two cycles for semesters commencing in July and January months each year.
Class of 2022: Diverse cohort

- Water Technology: Wastewater treatment
- Robotics: Computer vision & precision agriculture, UAVs & precision agriculture
- Computational Biology: Profiling of ALS progression
- Internet of Things: Sensors for digital agriculture
- Applied Mathematics: Air Pollution Modelling
- Humanities: Visual Culture, Politics of Expertise, History & Philosophy
- Economics: Economic development and Macroeconomics

Research Areas

Applied Mathematics
Humanities
Internet of Things
Robotics
Water Technology
Computational Biology
Fee, and Financial Support
**Fee**
- Admission Fee (one time) ₹ 25,000
- Annual Registration Fee (non-refundable) ₹ 5,000
- Annual Tuition Fee ₹ 7,00,000

**Tuition Fee waiver**
- Candidates admitted under Plaksha Doctoral Fellowship or Government Fellowship will receive a full tuition fee waiver in addition to the financial support

**Financial Support**
- Monthly stipend of ₹ 60,000 in first & second year & ₹ 70,000 after completion of the second year for subsequent years
- Conference/ workshop related travel allowance (domestic and international) of up to ₹ 2,00,000 during the entire duration
- For Research Internship at National/ International Institutions (subject to recommendation of DRC)
Reimagining Courses and Curriculum

Forward Looking
Combining domain knowledge, research & portable skills

**Module 1**

**Domain Specific**

Provides in-depth specialized knowledge and skills related to a specific domain/subject.

**Module 2**

**Research Skills**

Provide PhD Scholars with the necessary knowledge and tools to conduct rigorous and impactful research in their respective fields.

- Research Methods
- Data Analysis
- Ethics in research
- Writing for research
- Literature review
- Advanced Fluid Mechanics
- Advanced Macroeconomic Development
- Entangled Worlds

**Module 3**

**Portable Skills**

Focuses on practical, hands-on skills that can be applied in a variety of contexts, making PhD Scholars more versatile and adaptable in their careers.

- Leadership
- Effective Communication
- Teaching
- Project Management

**Illustrative course**
Academics – Deep Dive

Year 1
Complete credit requirement for Course work ~ minimum 12 credits

Year 2 onwards
Research Internship 6 months

18 months
Pre-synopsis seminar & report Comprehensive Evaluation

Year 3
Submission of Thesis
PhD Defence – within 8 weeks after acceptance of the thesis

PhD Scholar must register for at least 2 courses from each module, including mandatory course

Mandatory courses are (i) Research & Publication Ethics (ii) Research Methodology and (iii) Personal & Professional Leadership
PhD admissions for 2023 are now open

Connect with us at

✉️ phd.academics@plaksha.edu.in  |  📞 0172 412 6412