Indian Institute of Technology Jodhpur
at a glance

॥ त्वं ज्ञानमयो विज्ञानमयोऽसि ॥

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Designed, Compiled and Published by
Institute Publications Committee

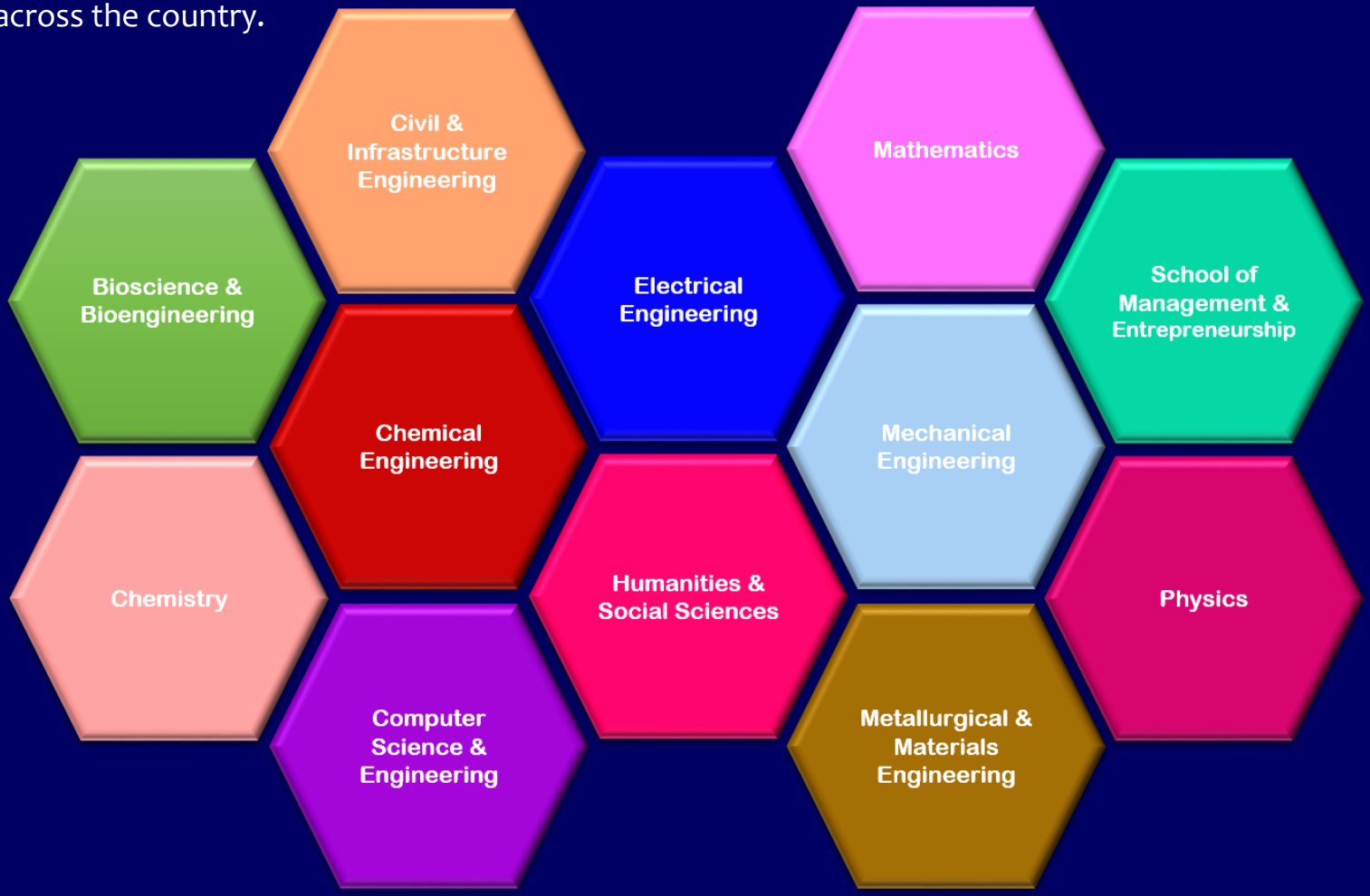
IIT JODHPUR - Welcome to New Beginnings…

Located in India's most vibrant state – Rajasthan, IIT Jodhpur's sprawling, award winning, state-of-the-art residential campus on 852 acres of land located ~20 km away north-northeast from the centre of the city of Jodhpur on National Highway 65 towards Nagaur. This new campus has been planned meticulously and envisioned to stand as an icon for world class academics – simple, but deep... The campus is fully residential for the students and provides housing for Faculty Members and Staff Members. The Institute and the campus is fully functional with necessary services and amenities.

Currently, with the second phase construction of the campus of the Institute underway, IIT Jodhpur has the singular distinction of being the first fully-planned technical institute campus in India. More importantly, it will be an international exemplar of sustainability with Net Zero strategies for Energy, Water and Waste.

Academics @ IIT Jodhpur

The Institute hosts a wide variety of academic programs at the Undergraduate, Post Graduate and Research Degree levels, in almost different disciplines. The departments regularly undertake curriculum review of the courses being taught in these programs so that the programs become stable and yield the desired result. This exercise is carried out with the help of subject experts from across the country.



The B.Tech. Programs hosted by the Institute are designed to place emphasis on engineering design, focus on entrepreneurial skill building and encourage engineering innovation.

Undergraduate Programs

New curriculum: Design your own program

B.Tech. Programs

1. Biotechnology
2. Artificial Intelligence
3. Computer Science & Engineering
4. Chemical Engineering
5. Civil & Infrastructural Engineering
6. Metallurgical & Materials Engineering
7. Mechanical Engineering

- → New Broad-based Curriculum
- → Flexible programme with right balance of knowledge and Hands-on Experience
- → Provides opportunities for experiential learning
- → Meet emerging demands of industry
- → Focus on Developing technical capability in interdisciplinary areas

- → Emphasize on Design thinking and Creativity from 1st year
- → Option to pursue Entrepreneurship and Engineering Innovation in 8th semester
- → Offers Minor, Interdisciplinary and Department Area Specialization as part of 4 year programme
- → Student can opt Double B.Tech. within 4 year of programs through extra credits
- → Option to convert B.Tech. into 5-year B.Tech. + M.Tech. Dual Degree in 7th semester

Option to pursue
Minor / Interdisciplinary Specializations

1. Artificial Intelligence (AI)
2. Cyber Physical Systems (CPS)
3. Internet of Things (IOT)
4. Smart Healthcare
5. Management
6. Entrepreneurship
7. Engineering Innovation

Post Graduate Programs

Preparing for Invention & Innovation

M.Sc. Programs

1. Chemistry
2. Digital Humanities
3. Mathematics
4. Physics

M.Sc. – M.Tech. Dual Degree Programs

1. Data & Computational Sciences
2. Physics & Materials Engineering

- Build a strong foundation of knowledge, pursue excellence in academics and enhance creativity in an intellectually stimulating environment
- Scientific reasoning and development of analytical problem solving skills for future breakthroughs in new frontiers
- Provide academic rigor and innovation, not extreme specialization, rather flexibility and comprehensive knowledge with micro-specializations

The Institute hosts M.Sc. and M.Sc. – M.Tech. Programs with an aim of preparing the masters students for invention and innovation.

Post Graduate Programs

Preparing for Invention & Innovation

M.Tech. & M.Tech. – Ph.D. Dual Degree Integrated Programs

Bioscience & Bioengineering	Chemical Engineering	Civil & Infrastructural Engineering	Computer Science & Engineering
Artificial Intelligence	Communication Engineering *	Cyber Physical Systems	Sensors & Internet of Things (SIOT)
Data & Computational Sciences	Advanced Manufacturing & Design #	Thermofluids Engineering	Materials Engineering

1. Building advanced knowledge base with relevant industry focus
2. Multi-disciplinary perspective for integrated technology development
3. Training in systems engineering & IP management

* *M.Tech.-Ph.D. Dual Degree Integrated*
 # Manufacturing Engineering - M.Tech.-Ph.D. Dual Degree Integrated
 # Design Engineering - M.Tech.-Ph.D. Dual Degree Integrated

The M.Tech. Programs hosted by the Institute aim at building advanced knowledge base with relevant industry focus, integrated techology development and also provide training to the students in systems engineering and Intellectual Property management.

Post Graduate Programs

Preparing for Invention & Innovation

Ph.D. Programs

Departmental

- Bioscience & Bioengineering
- Chemistry
- Chemical Engineering
- Civil & Infrastructural Engineering
- Computer Science & Engineering
- Electrical Engineering
- Humanities & Social Sciences
- Mathematics
- Metallurgical & Materials Engineering
- Mechanical Engineering
- Physics

Interdisciplinary (IDRP)

- Autonomous Unmanned Vehicles
- Cognitive Science
- Digital Humanities
- Internet of Things (IOT) and Applications
- Smart Healthcare
- Space Science and Technology
- Quantum Information and Computation

Tech MBA, starting Academic Year 2020…

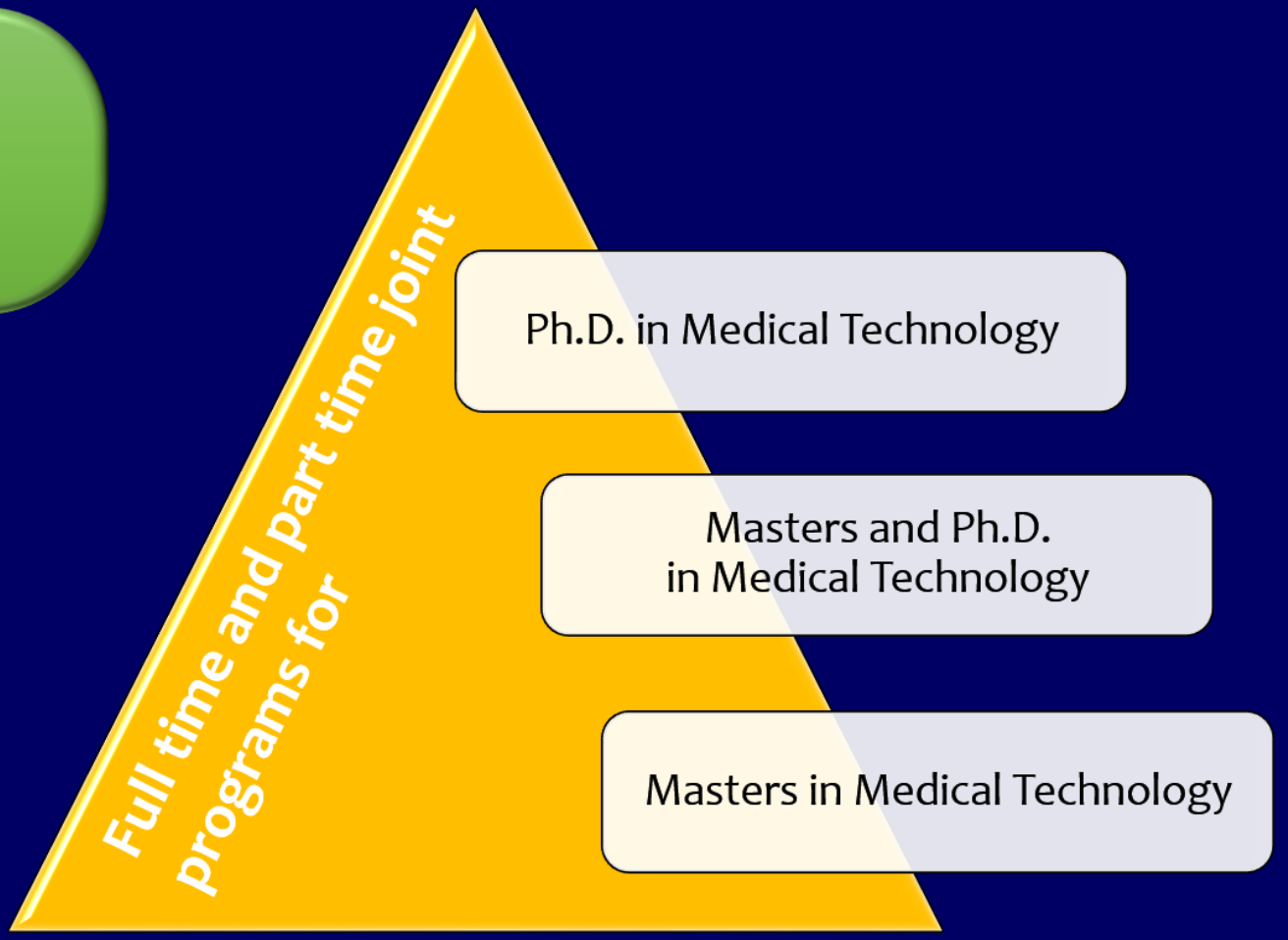
Tech-MBA is a two-year program, where first-year will be devoted to foundation courses and the full second-year will be available to earn specialization into cutting edge areas. The School will offer specializations in two directions - in traditional areas to earn a regular MBA degree, while tech courses to earn Tech-MBA degree.

- Running regular and executive MBA programs
- Supporting relevant management and entrepreneurship education in the UG and other programs
- Development and delivery of industry focused special academic programs
- Support Entrepreneurship program of the institute

The program is aimed to add a new community of students whose presence will complement academic discourse that already exists.

Joint Programs

AIIMS-Jodhpur & IIT Jodhpur



Deriving the advantage of being located in one city, IIT Jodhpur and AIIMS-Jodhpur have come together through an MoU to offer these academic programs, starting with the Academic Year 2020.

Professional Upskilling Programs

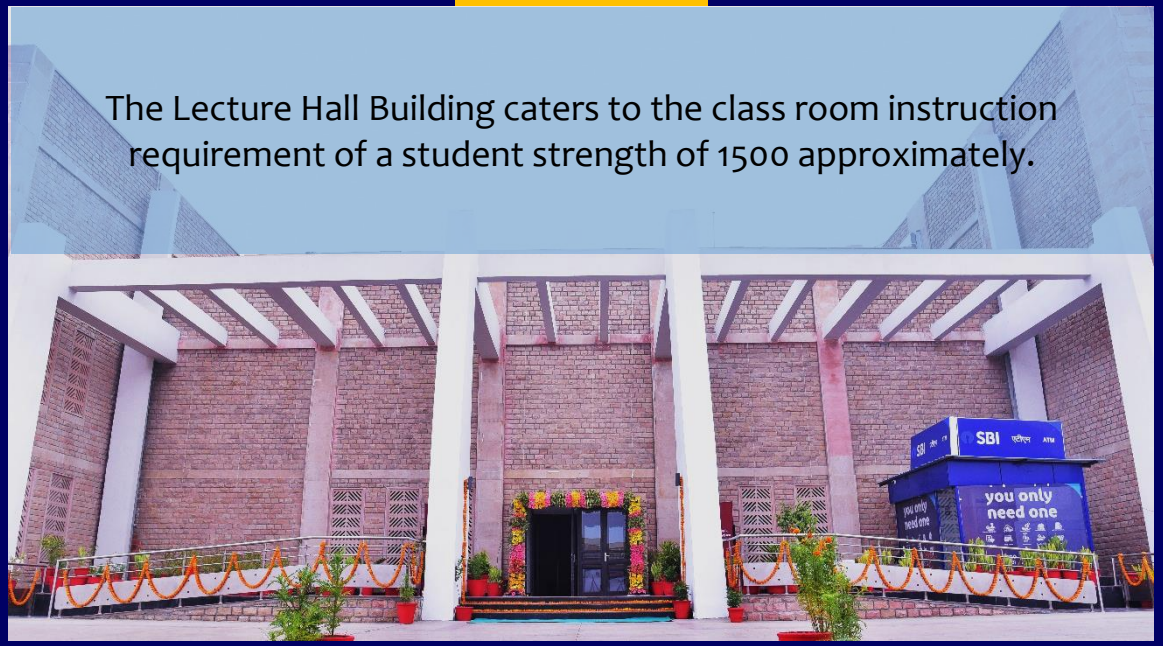
Certificate Courses and Diploma Programs with the following features

- Flexible and short timeframe for capability enhancement programs
- Relevant skills and competency with the latest technologies
- Such specialized training within a minimum duration of 8 weeks
- The classes will be conducted during the weekend and total contact hours will be 64
- Through direct contact/synchronized learning/or combination of the both

Academic Infrastructure

Fully equipped Lecture Halls for classroom instruction

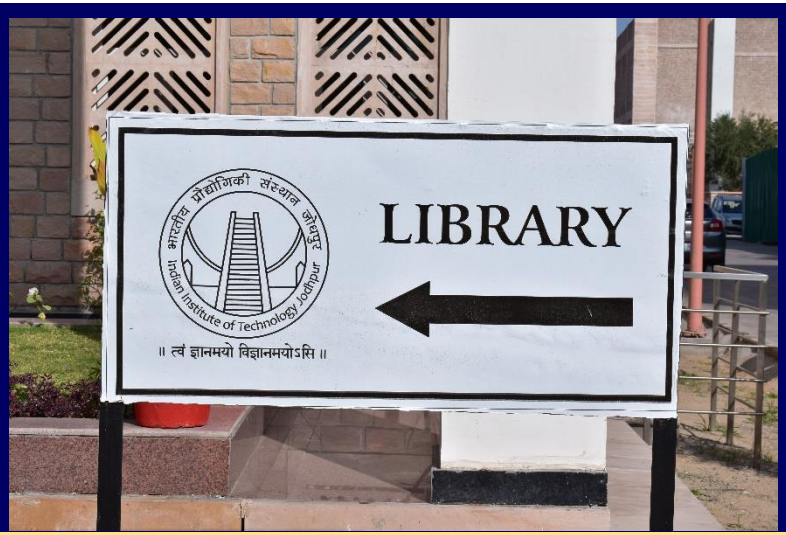
The Lecture Hall Building caters to the class room instruction requirement of a student strength of 1500 approximately. The large lecture halls of 320 and 680 seating capacity also double-up as the auditoriums.



Also, the departments have well-established teaching laboratories for augmenting the learning process with practical hands-on experience of the students of undergraduate and post-graduate programs.

Academic Infrastructure

The Learning Hub

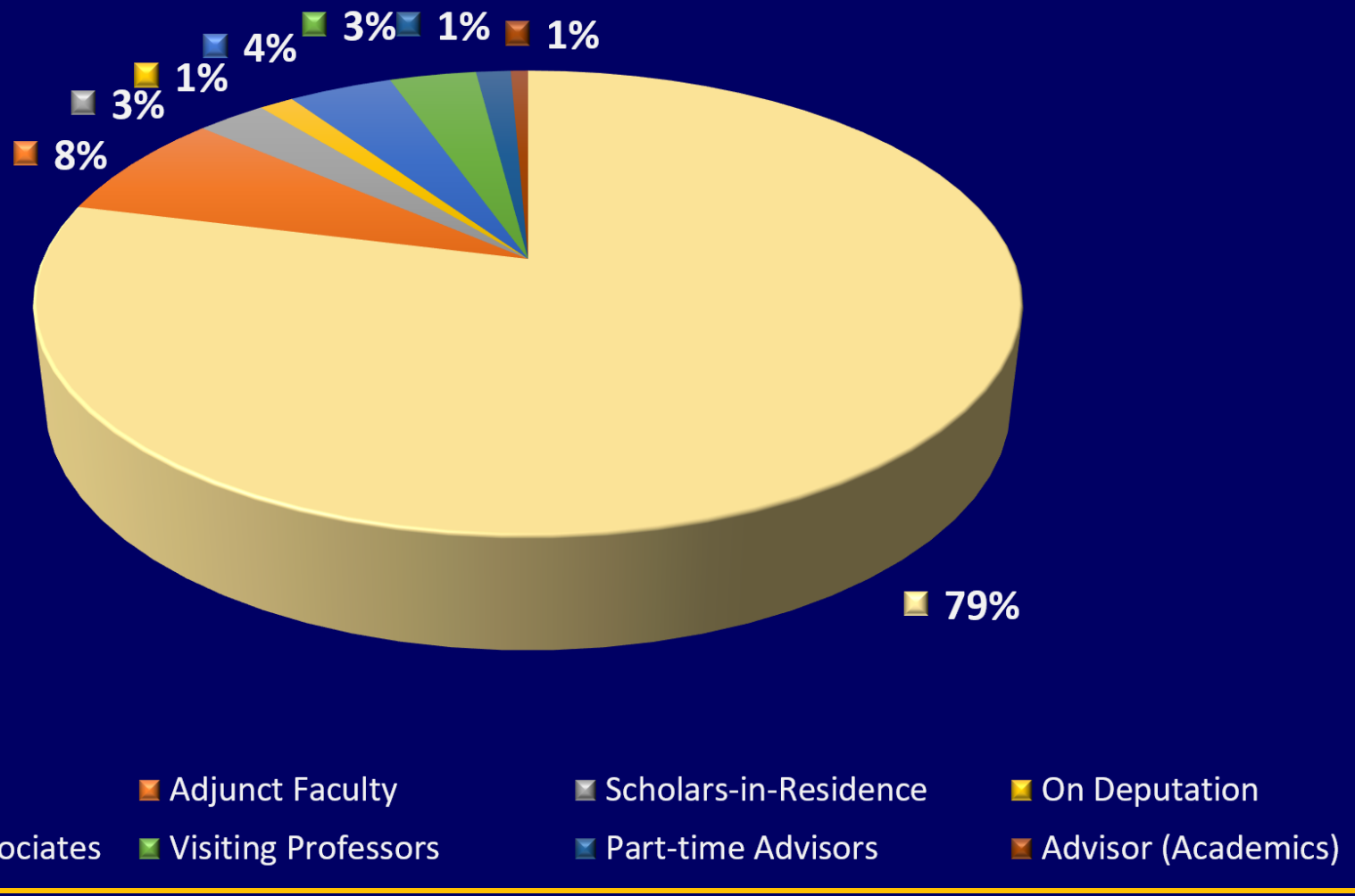


The Library, supports the teaching and research activities of the Institute by facilitating acquisition, organization and dissemination of knowledge resources, and also providing library & information services to IIT Jodhpur community.

It houses a rich and growing collection of books, journal resources and databases catering to various information requirements of the users and provides seamless access to information both on-campus and off-campus.

Our Faculty

Currently, 147 Faculty Members are serving the Institute, including 116 regular, 5 visiting, 11 adjunct faculty, 2 professors on deputation, 4 scholars-in-residence, 3 advisors and the 6 young faculty associates.



Honours and Accolades

Several Faculty Members in the Institute have received awards and fellowships for their valuable contributions in their respective fields. A few of them are…

Dr. Amit Mishra, Associate Professor, Department of Bioscience & Bioenginering
- ☆ Eminent Shri Om Prakash Sharma Award, India, Indian Academy of Biomedical Sciences (IABS), Lucknow
- ☆ Distinguished Life Time Membership from National Academy of Medical Sciences (NAMS), New Delhi
- ☆ Fellowship of the Royal Society of Biology (FRSB), UK

Dr. Deepak Fulwani, Associate Professor, Department of Electrical Engineering
- ☆ Inducted into Editorial Board of IEEE Transactions on Industry Applications as an Associate Editor

Dr. Hardik B. Kothadia, Assistant Professor, Department of Mechanical Engineering
- ☆ Award for Excellence in Thesis Work, IIT Bombay
- ☆ Certificate of Outstanding Contribution in Reviewing, International Journal of Heat and Mass Transfer

Dr. Mayank Vatsa, Professor, Department of Computer Science & Engineering
- ☆ Swarnajayanti Fellow of the Department of Science & Technology, Government of India

Dr. Mahesh Kumar, Associate Professor, Department of Electrical Engineering
- ☆ Member, The Royal Society of Chemistry, UK
- ☆ JPhysD: Emerging Leader Award, Institute of Physics, UK
- ☆ YSAP Mission Award, Global Young Academy, Germany

Dr. Priyanka Singh, Assistant Professor, Department of Bioscience & Bioengineering
- ☆ Har Gobind Khorana-Innovative Young Biotechnologist Award 2019, Department of Biotechnology, Government of India

Dr. Rajlaxmi Chouhan, Assistant Professor, Department of Electrical Engineering
- ☆ Late Shri Pralhad P. Chhabria Award: Women Professional (Early Career), Hope Foundation & Research Centre in association with IEEE India Council & WiE Affinity Group, IEEE Pune Section

Dr. Richa Singh, Professor, Department of Computer Science & Engineering
- ☆ Fellow, International Association of Pattern Recognition (IAPR), USA

Dr. Soumava Mukherjee, Assistant Professor, Department of Electrical Engineering
- ☆ URSI Young Scientist Award, Indian Radio Science Society (InRaSS), New Delhi

Dr. Surajit Ghosh, Professor, Department of Bioscience & Bioenginering
- ☆ Fellow, Royal Society of Chemistry
- ☆ CDRI Excellence Award 2020, CSIR-Central Drug Research Institute, Lucknow

Dr. Yashaswi Verma, Assistant Professor, Department of Computer Science & Engineering
- ☆ IUPRAI Doctoral Dissertation Award, Indian Unit for Pattern Recognition and Artificial Intelligence (IUPRAI), Kolkata

Scholars-in-Residence

Prof. K. L. Chopra

- Former Director, Indian Institute of Technology Kharagpur (1987-97)
- Expert in Materials Physics
- Advisor, Thin Film Laboratory, Indian Institute of Technology Delhi
- Distinguished University Chair Professor, Bengal Engineering & Science University, Kolkata
- Padma Sri, 2008
- Aryabhatta Medal, 2004
- P. C. Mahalanobis Medal, 1996
- Distinguished Material Scientist Award, 1995
- Distinguished Material Scientist Award, 1995
- Distinguished Vacuum Society Award, 1994
- Om Prakash Bhasin Award for Science and Technology, 1989
- Bhabha Award of the UGC, 1989
- FICCI Award, 1983
- Shanti Swarup Bhatnagar Award, 1975

Prof. R. K. Shyamasundar

- J. C. Bose National Fellow and Distinguished Professor, Department of Computer Science and Engineering, at the Blockchain Centre of Excellence, Indian Institute of Technology Bombay
- Senior Professor, Tata Institute of Fundamental Research Mumbai
- Expert in Real-Time and Reactive Programming, Logic Programming, Pi-Calculus, Parallel Programs and Scheduling, Programming Languages: Semantics, Design, and Tools
- Fellow, Indian Academy of Sciences and Indian National Science Academy
- Senior Member, IEEE
- Member, New York Academy of Sciences
- Fellow of the British Blockchain Association

Prof. Sankar K. Pal

- INSA Distinguished Professor, ISI Emeritus Professor and Former Director at ISI, Kolkata
- Expert in Fuzzy Neural network, soft computing, and machine intelligence
- Padma Sri, 2013
- Mahalanobis Birth Centenary Gold Medal from Prime Minister of India for Lifetime Achievement
- Khwarizmi International Award from the President of Iran, 2000
- Vikram Sarabhai Research Award, 1993
- Shanti Swarup Bhatnagar Award, 1990
- Life Fellow of the IEEE, Fellow of the World Academy of Sciences (TWAS), International Association for Pattern recognition, International Association of Fuzzy Systems, International Rough Set Society, and all the four National Academies for Science/Engineering in India

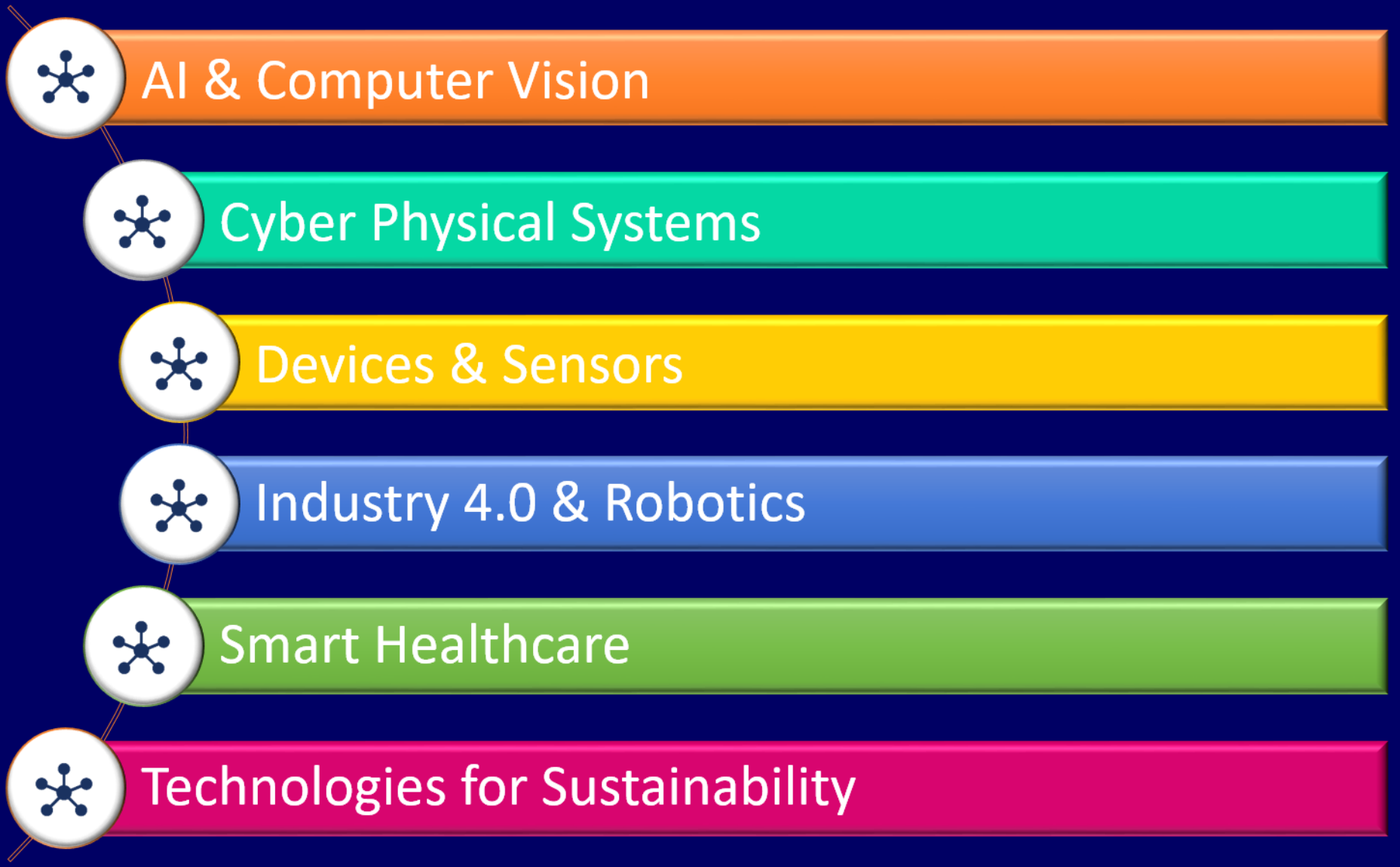
Prof. Devang V. Khakhar

- Distinguished Professor and Former Director, Indian Institute of Technology Bombay
- Expert in Polymer Science
- H. H. Mathur Award for Applied Sciences, IIT Bombay, 2005
- Millennium Gold Medal, Indian Science Congress, 2000
- Herdillia Award, Indian Institute of Chemical Engineers, 1999
- Shanti Swarup Bhatnagar Prize, 1997
- Amar Dyechem Award, Indian Institute of Chemical Engineers, 1993
- Swarnajayanti Fellowship, Department of Science and Technology, 1998
- Fellow, Indian National Academy of Engineering and Indian National Science Academy

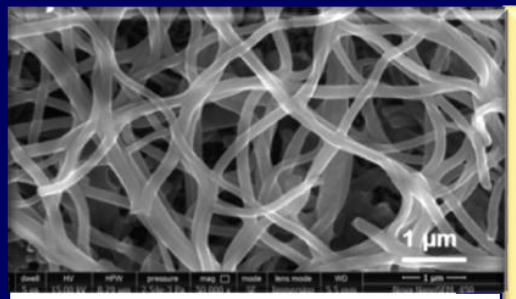
Collaborations

The Institute collaborates with several institutes and organizations of national and international repute for furthering its academic and research activities, which include joint academic and research activites including conduct of academic courses, projects, publications, technology development.

Current Thrust Areas of Research



Significant Research Achievements



Development of highly sensitive sensor based on synthesized Carbon Nano-fibre (CNF) to detect hydrogen gas at extremely low concentrations

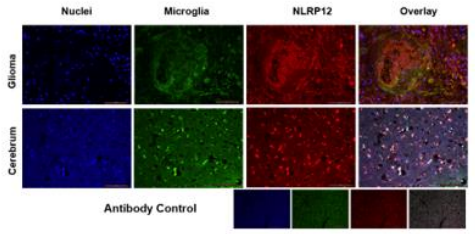
Technology for Biofuel Production

Development of filtration device for water treatment and its use for chemical free agriculture

Estimation of brain connectivity through neural network approach

Development and implementation of paper-based high performance transistors

Design and development of therapeutic leads, markers for various diseases



NLRP12 expression in human brain samples. Data from *"Differential Expression Profile of NLRs and AIM2 in Glioma and Implications for NLRP12 in Glioblastoma"* Scientific Reports 9, Article number: 8480 (2019).

Development of biometric-inspired security framework for medical images

Innovation of catalytic converter for automobiles using Rajasthani clay

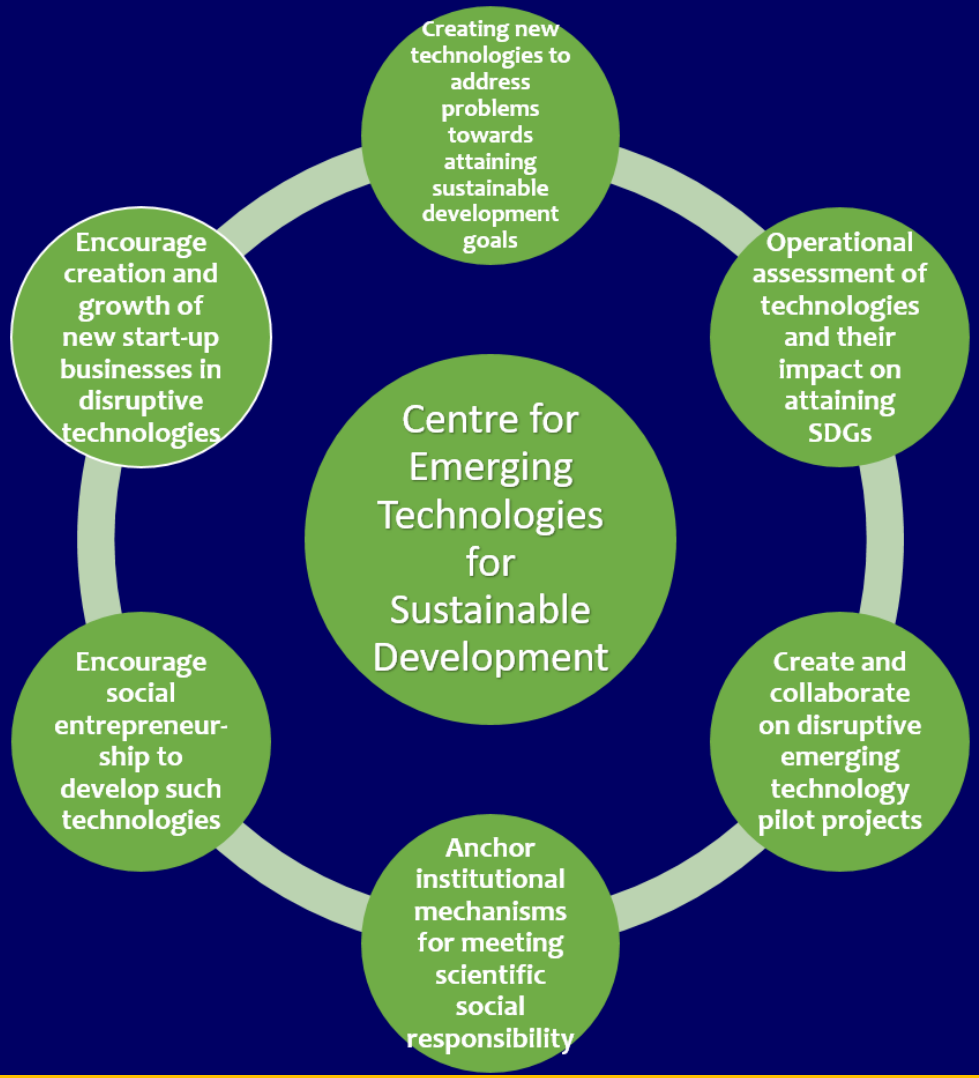
Research Infrastructure

The *Center for Advanced Scientific Equipment (CASE)* is an integrated facility hosting a variety of major analytical instruments which are operated and maintained by a dedicated and qualified scientists and engineers. It caters to all researchers at IIT Jodhpur to carry out their research activities centrally under one umbrella. There are several laboratories under CASE and their details are available on the Institute website. This facility is open to internal and external researchers as well, as in from other academic and research institutions, industries and organizations in the neighbourhood.

Various instruments in the Center for Advanced Scientific Equipment (CASE)

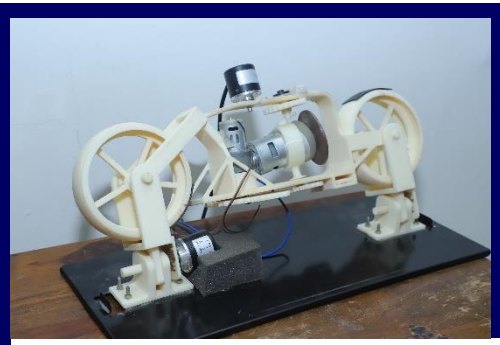
New Centres


Centre for Technology Foresight and Policy
To foster directed development of advanced technologies
To teach professionals about technology and strategic foresight to build capacity in this field in India
Help other organizations grow their own foresight capacity and plan for the future
Create links with international technology and strategic foresight institutions to facilitate collaborations and information exchanges
To become policy think-tank for the governments, Industries and Academia


Centre for Emerging Technologies for Sustainable Development
Creating new technologies to address problems towards attaining sustainable development goals
Operational assessment of technologies and their impact on attaining SDGs
Create and collaborate on disruptive emerging technology pilot projects
Anchor institutional mechanisms for meeting scientific social responsibility
Encourage social entrepreneur-ship to develop such technologies
Encourage creation and growth of new start-up businesses in disruptive technologies

Engagement with Industry

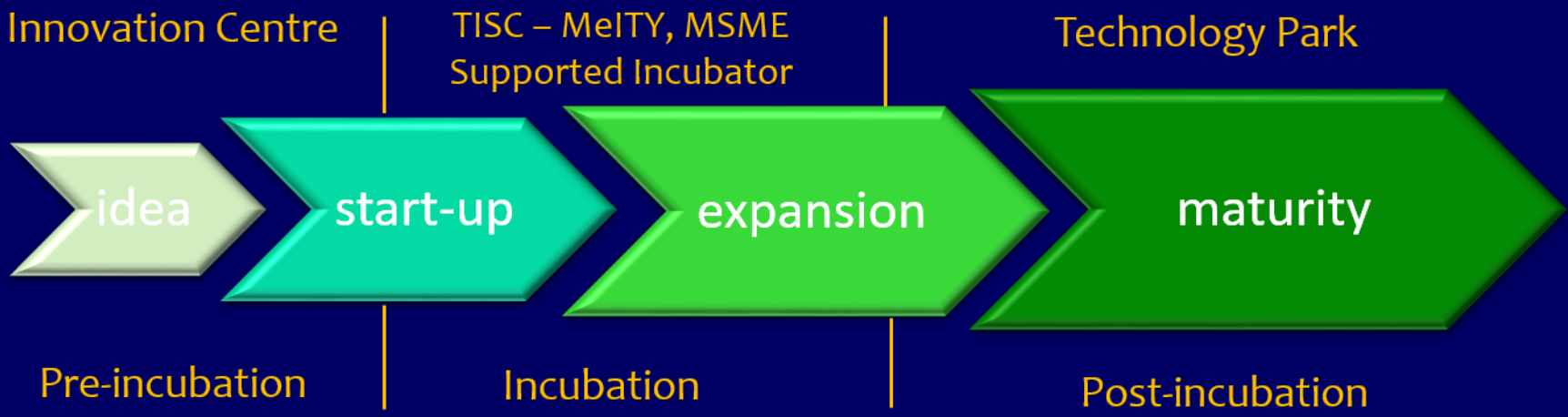
Technology Innovation and Start-up Center @ IIT Jodhpur




It nucleates a cluster of new age ventures. The focal theme for the TISC and Technology Park is AIOT – Artificial Intelligence of Things. Technology Park under the aegis of an independent section-8 company managed by IIT Jodhpur with the financial and technical support of relevant stake-holders (Government Agencies, Angel and Venture Investors, Technology Providers) will -

- Have a Common Research and Technology development Hub providing access to hardware and software facilities for end-to-end research, prototype development and pilot production of products for AIOT space,
- Provide an interface for industries to collaborate with faculty and students of IITJ and other research and academic organisations in the country and Jodhpur in particular, and
- Enable interface for mentors and investors including government agencies to work with MSME and start-ups.

Incubation @ IITJ



Campus Life

Campus life at IIT Jodhpur is both vibrant and enriching. Activities, like cultural programs, celebration of national festivals, workshops of general nature, bring together the Students, Faculty Members and Staff Members along with their families.

Wildlife

The IIT Jodhpur Campus is home to several species of native flora and fauna. Black Bucks, Chinkaras, Nilgais, Jackals, Snakes and the historical *Khejri* trees.

Come, let us scale heights together...!!

For any query, please contact:
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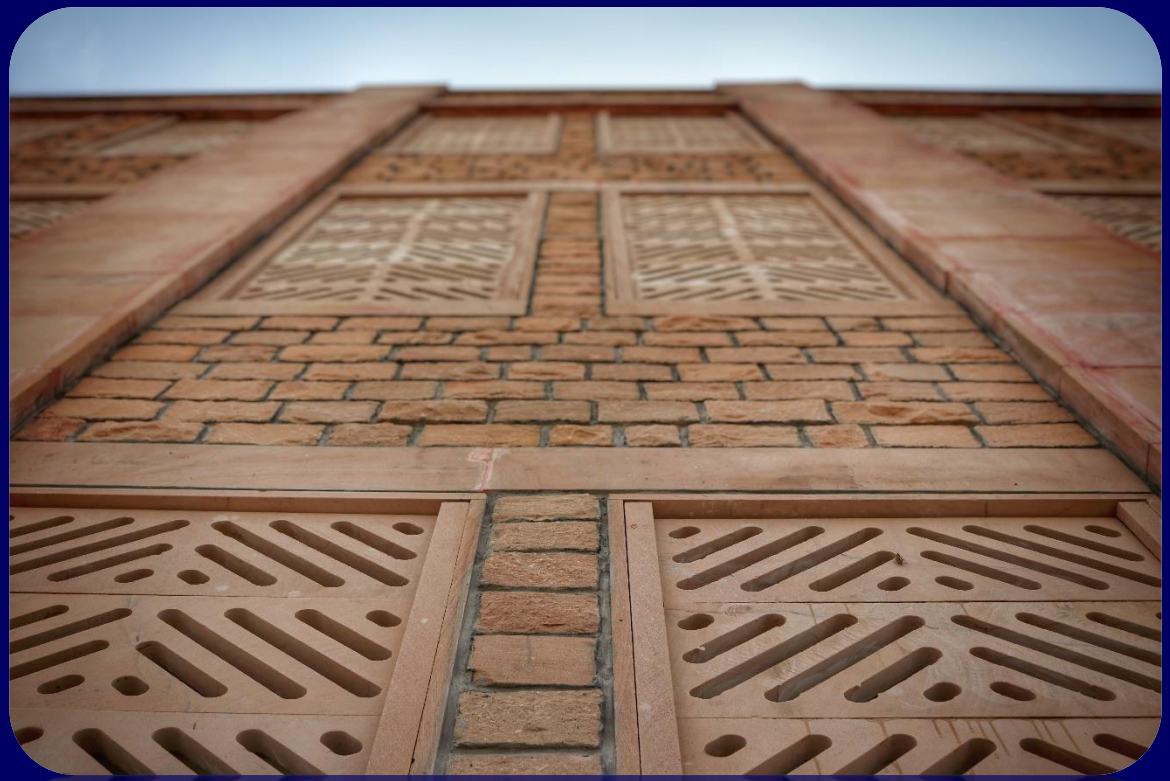
For more information, please visit:

https://iitj.ac.in



Catch up
with us on :