



# INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR



*“Here in the place of that Hijli detention camp stands this fine monument of India, representing India’s urges, India’s future in the making”*

# IIT Kharagpur: Over the Decades



*2015: Focus on Research Excellence, Innovations, Interdisciplinary Studies, Student Orientation*

*2010: Medical Education , Engineering Design and Manufacturing, Entrepreneurship, Science Park, Fund Raising for the Institute*

*2000's: Intern'l R&D Centres, Energy, NanoTech, Water, Infra, Incubation, IPR Law,*

*1990's: Multi-disciplinary Centres, ATDC, Missions, Entrepreneurship Park, Business Management*

*1980's: CSE, Biotechnology, Industrial Engineering, SRIC*

*1970's: Capacity Growth, Sponsored Research & Consultancy*

*1960's: Growth in Engineering, Science, HSS, Vibrancy in Academic Research*

*1950's: Establishing the IIT Education System with 224 students and 42 teachers*



# IIT Kharagpur – At a glance

**1** Academic  
19 Depts, 9 Centres,  
8 Schools,  
30+ Special R&D Units

**2** Broad Disciplines  
Engineering & Technology,  
Basic Sciences,  
Biosciences, Earth Sciences,  
Social Sciences, Humanities,  
Management,  
Law, Entrepreneurship  
Medical Science & Technology

**3** Academic Programs  
B.Tech, B.Arch,  
Dual Degree, MBA,  
MHRM, LLB, MMST,  
M.Sc/ M.Tech/ MCP/  
MS, PhD, DSc,  
Multi-Institutional

**4** Total Student Strength  
~11,400 students  
(57% UG, 21% PG, 22% PhD  
counting MSc and Dual  
Degree in UG Category, else  
ratio is 50%:28%:22%)

**5** Faculty & Staff  
615 faculty, 974 staff

**6** Research Publications  
2000+ Journal Papers  
per year

**7** Patents Filed  
50 to 100 / year

**8** Total No. of Hostels  
22

## Research Park



R&D Laboratories  
Incubation Units  
National Missions  
Outreach Education  
Education Mission  
DAE/ DRDO/ ISRO Labs

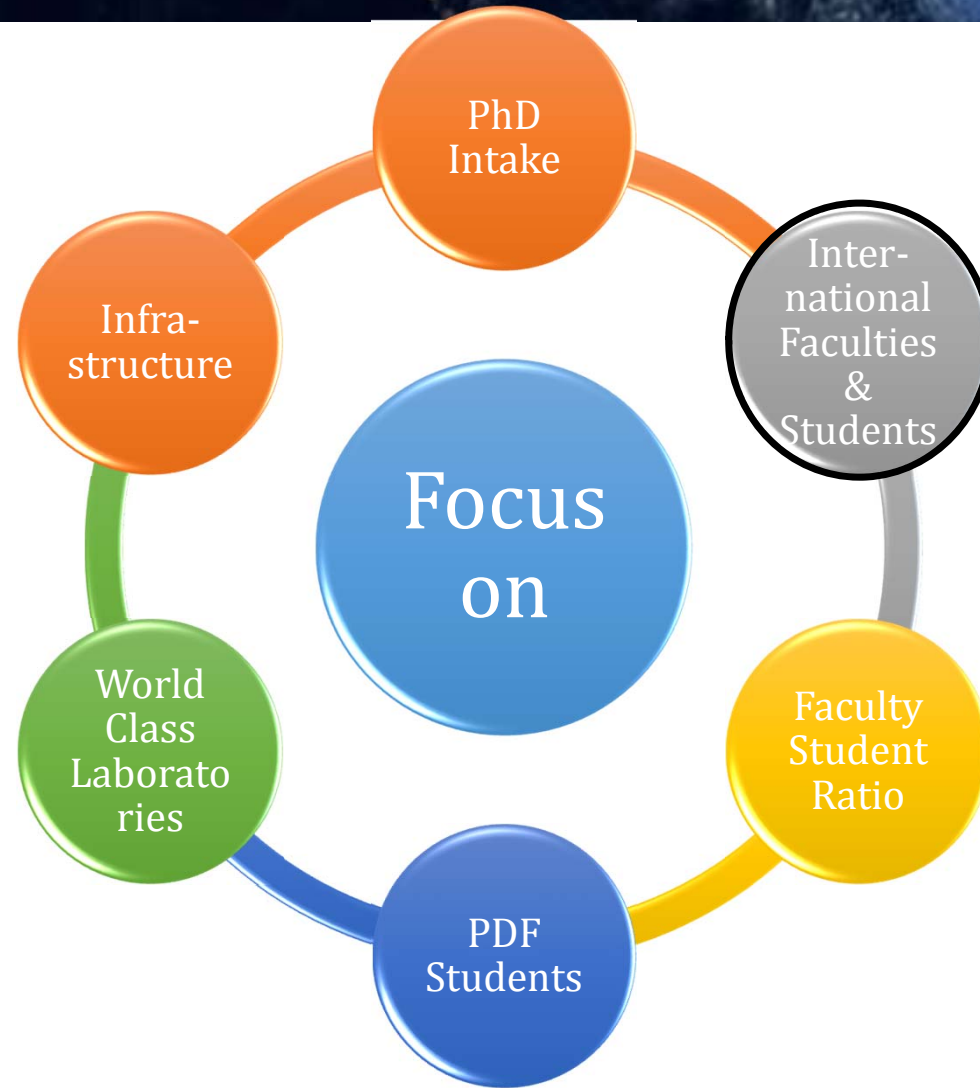
# Ranking IIT Kharagpur - 2016

QS Parameters (weightage) For World University Rankings	2016 World Rank
Overall	313
Academic Reputation	380
Employer Reputation	221
Faculty Student Ratio	501+
Citations per Faculty	61
International Students	501+
International Faculty	501+

Agencies	Rank Obtained
QS Ranking 2015/2016	286/313
THE Ranking 2015	401-500
QS: Asia 2016	51
THE: Asia 2016	51
QS: BRICS 2016	25
THE: BRICS 2016	45

- National Intellectual Property award under the category of 'Top Academic Institute for Patents 2016' by the Indian Patent Office and the Confederation of Indian Industries
- Ranked among the top three Science & Technology Research Institutions in India by Department of Science and Technology
- Ranked most employable institution in the country by QS global employability rankings

# Approach



# Recent Interventions at IIT Kharagpur and their Impact

- **International Summer Winter Program for inviting Foreign Faculty**

This has now become the GIAN Program that IIT Kharagpur is coordinating.

- **Institute Challenge Grants**

This has led to development of high quality research programs and strong bids from IIT Kharagpur under national open grants like UAY and IMPRINT.

- **International Visiting Faculty Scheme**

Through this scheme, the Institute has already started inviting foreign faculty for long-term connections with the Institute including teaching, research supervision and joint project submissions.

- **Research Park**

At Kolkata to bring in industry and international collaboration in addition to incubation and entrepreneurship for students

- **Alumni Interconnect**

Programs related to Internationalization, Setting up Innovation Centre and Centers of Excellence in Petroleum Engineering and Infrastructure Design.

- **Medical Research Hospital**

International class research and academic unit in Medical Science & Technology.

- **Mega projects**

6 Interdisciplinary trans-disciplinary missions, enabling international collaboration and ground level impact. They are proposed to be continued under Vishwajeet.

- **Faculty Selections and PhD Intake**

120+ faculty selected in the last 3 years. PhD intake ramped up from 200 per year to about 600 per year. A new PDF Scheme has been initiated.

- **Int. Travel Grant for High Impact Conferences**

# International Outlook

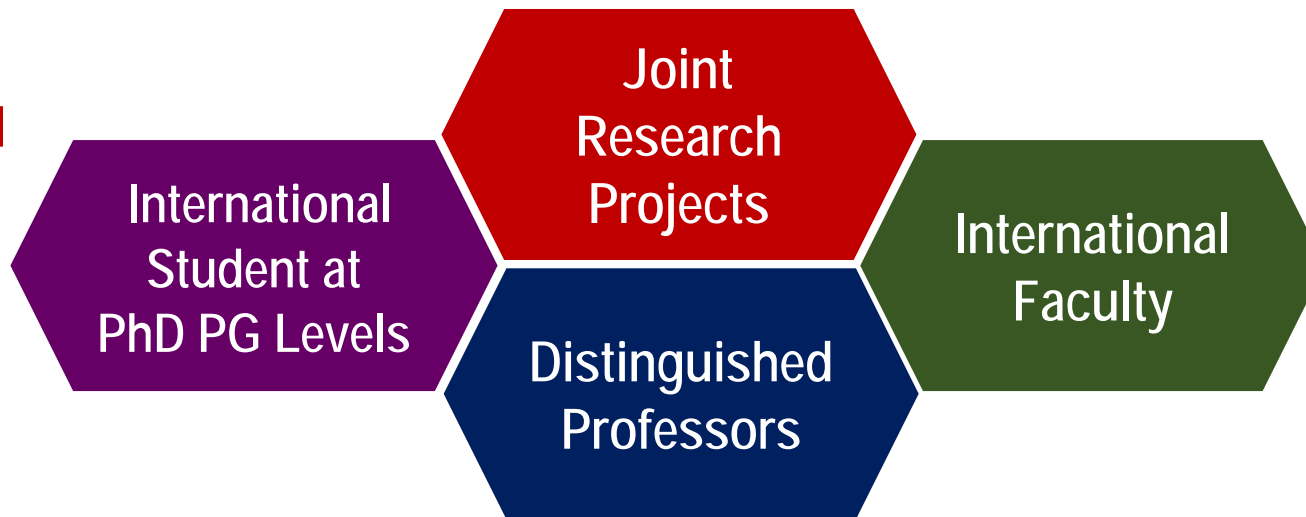
## Action Plan

- Student mobility and semester away programs to work in advanced partner laboratories in the world through GRIN
- Special drive for International Faculty through Institute and under GIAN / Teach in India
- Shri Gopal Rajgarhia International Program (SGRIP) for Faculty outreach, Research scholar support, Student scholarship, Workshops/Meetings, Student International travel support
- Joint /Dual PhD Programs with International Institutions
- Off-campus PhDs
- Joint publications with top international collaborators

# International Outlook

MoU and Joint International programmes with top 100 Universities and BRICS Network University

600 Doctoral and 700 PG level International students in 5 years

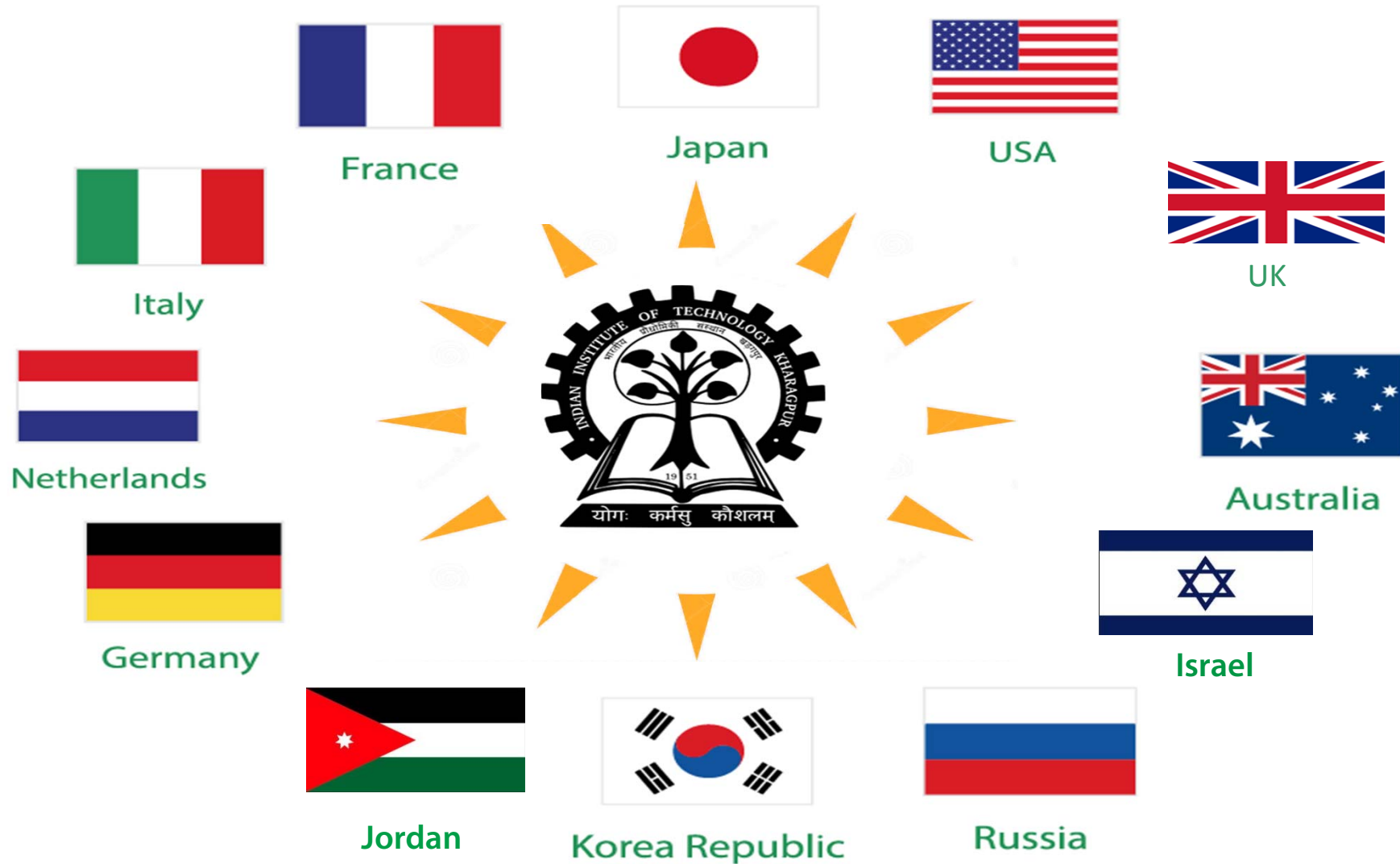


Recruiting 75 Regular and 25 Visiting Foreign Faculty members in 5 years

20 Distinguished Professors of top 100 Universities to visit per year



# MOUs Signed





# Collaborations with Australian Universities



## Collaborative Research Projects

- DST-ARC funded joint projects promoting doctoral student and faculty exchanges
- University of Melbourne, University of Queensland, University of Wollongong, Curtin University of Technology
- Outcomes: Joint PhD supervisions and joint publications

## Joint Courses

GIAN term courses with visiting faculty members from different Australian Universities

## MoUs signed with Australian Universities

- ❖ University of Melbourne (MIPP and MIPA)
- ❖ University of Queensland
- ❖ University of Wollongong
- ❖ Curtin University of Technology



# IIT KHARAGPUT - MIPP

Year of Application	Applied	Recommended from IIT KGP
2015	15	10
2016 MIPP	18	12
2016 Dual Doctoral	3	3

MIPP Statistics: MS: 20%; M. Tech.: 68%; M. Sc.: 6%; B. Tech.6%  
CGPA > 9.0: 65%

Departments Involved (IIT Kharagpur): Agricultural Biotechnology, Land and Water Resource Engg.;  
Agriculture and Food Engg. ; EE; E&ECE; CSE; Civil Engg.;

# University of Melbourne and IIT Kharagpur - DDP

Date: December 1-2, 2016

Venue: IIT Kharagpur:

Event: **UoM, IIT Kgp Joint Workshop, DDP MoU Signature**

9 Faculty Member of UoM visited different departments of IIT KGP to explore collaborative options

**DDP target:** to identify collaborative projects well before student intake

## **Outcome:**

Two Projects are identified

Active Discussions for many more

Thank you !!



INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR