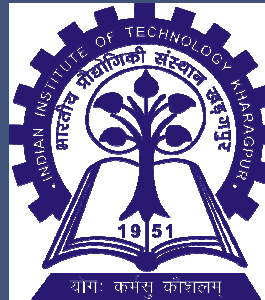


# Digital Initiatives taken by IIT Kharagpur



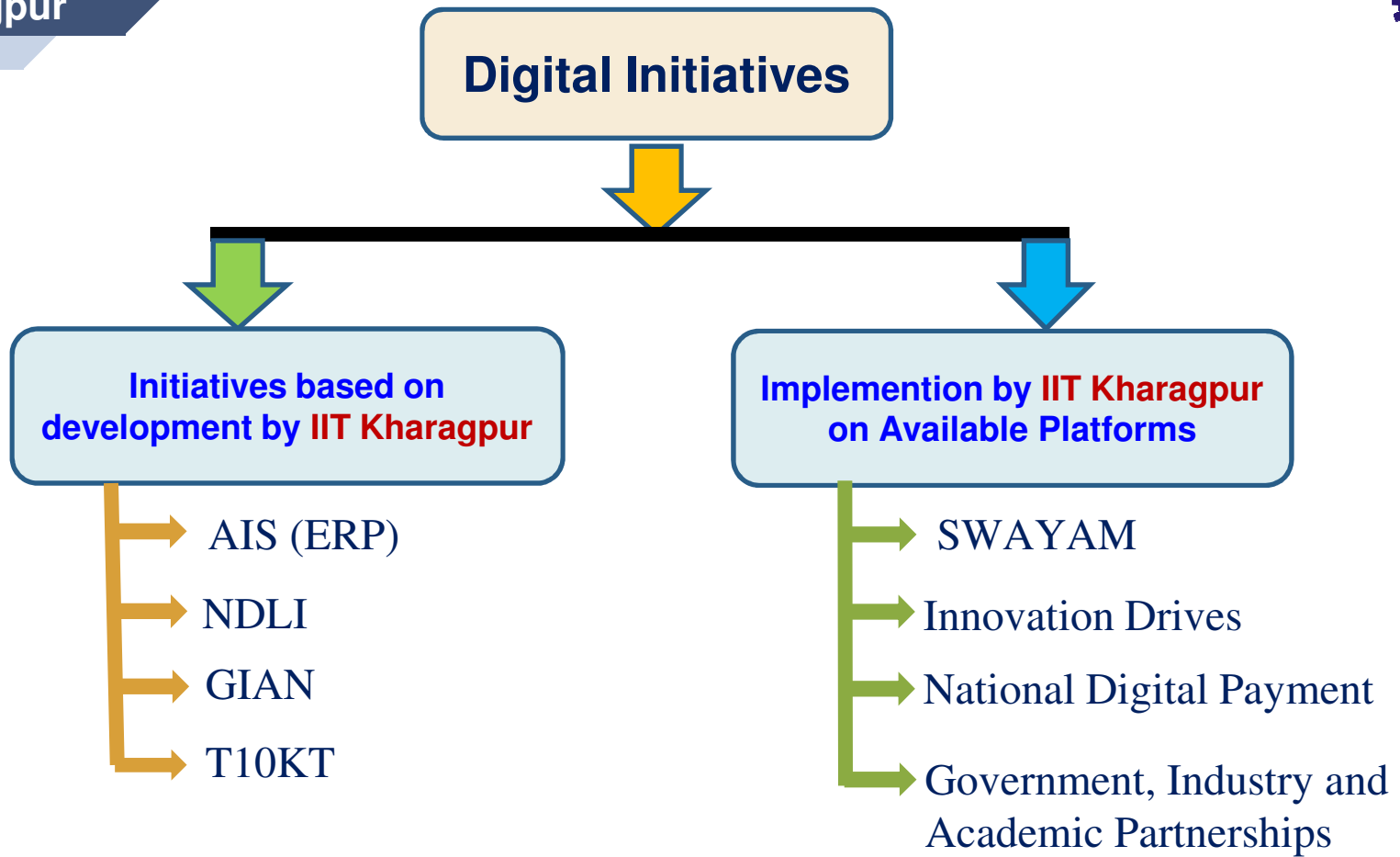
July, 2018

Director, IIT 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"*



## Digital Initiatives



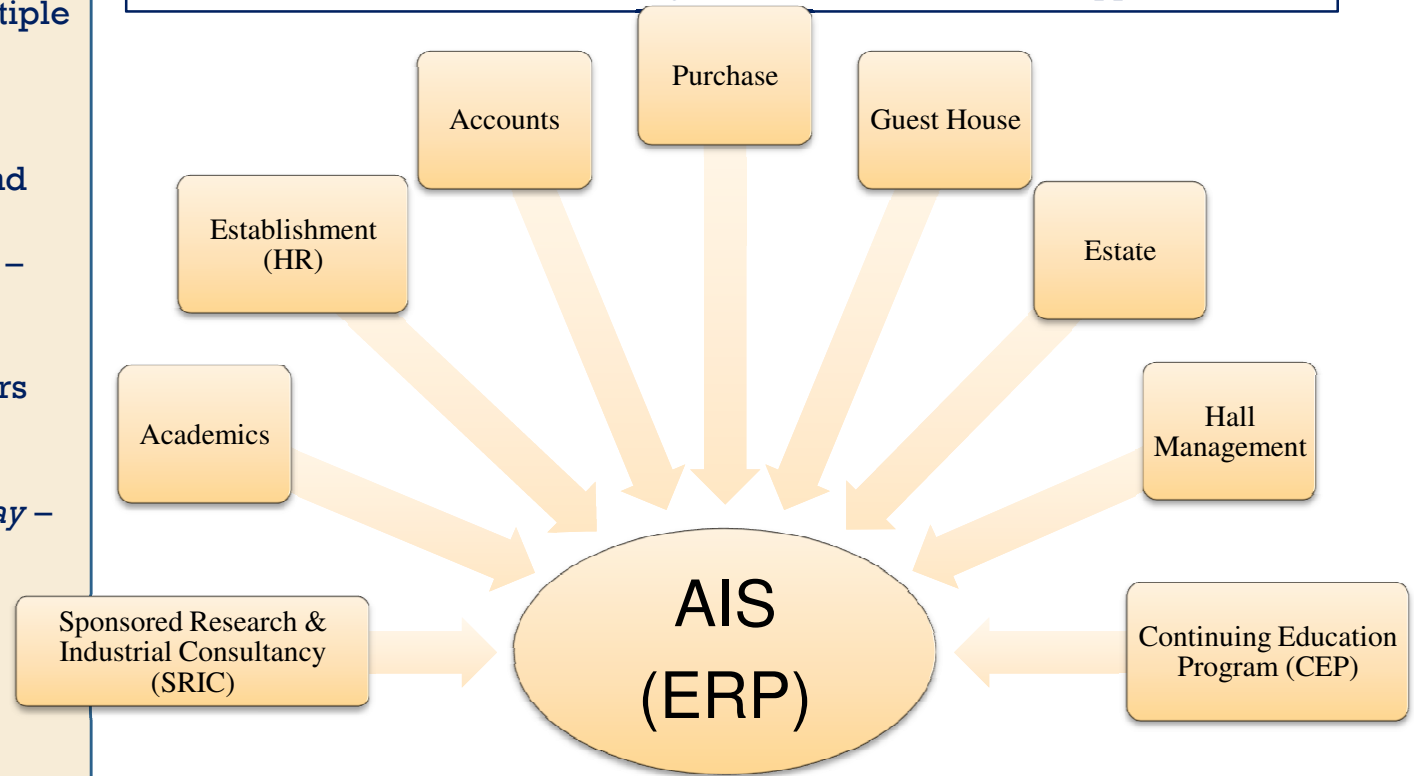
# Academic Information System (AIS)

(also called ERP)



- *Web based* – Accessible from anywhere in the world. (*Device agnostic*)
- *Single sign on* – Access multiple applications with single password
- *Role based access control* – Restricted access to data and process
- *Workflow based processing* – Process defined as data
- *Delegation of access* – Transferring access to others
- *Load balanced system* – Increased reliability
- *Centralized payment gateway* – For processing online payments
- *Security* – Encrypted communication, Restricted access, External audit

- AIS is a unique platform developed by IIT Kharagpur for handling academic activities.
- It was established without using SAP or other customized applications.



# Academic Information System (AIS)



## Monitoring module

Students academic, personal information and current status

Student roll list, enter the subject grades, propose new course

Department and central Examination related information

Feedback response, Results review, curriculum syllabus details

## SRIC

Registration of new students for internship under different project

Project information (If You are PI/Co-PI)

Staff details, available fund in the Project, previous years expenses

Apply for journey/advance and approval of expert

## PIS

Salary slips, income tax, Profile update

Apply online for CPDA, Medical, TA, loan and refund allowance, leave, guest room

## Establishment

Apply for HAG, chair professor and other awards,

Faculty recruitment process and their applications, Dept. committee members, Shortlisting criteria and final submission

## IIC

Update publications and website information

# National Digital Library of India (NDLI)

( As a National Knowledge Asset )

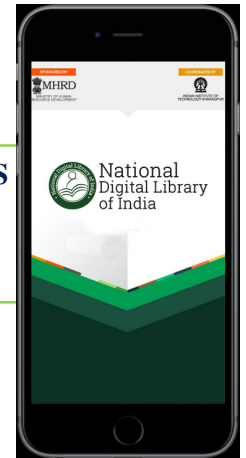


## An Ambitious Project of MHRD

- Professionals and Edupreneurs
- Academics and Researchers
- Schools and Colleges
- Differently-abled
- Life-long Learners

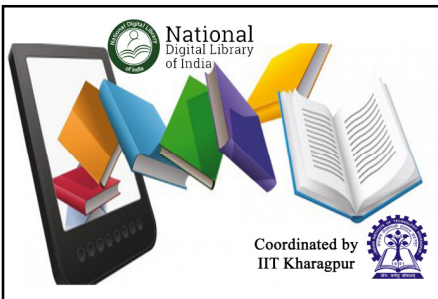
- 30 lakh+
- 9000+ Registered-Institutes

- Devices and OS
- Desktop
- Mobile
- Android, iOS



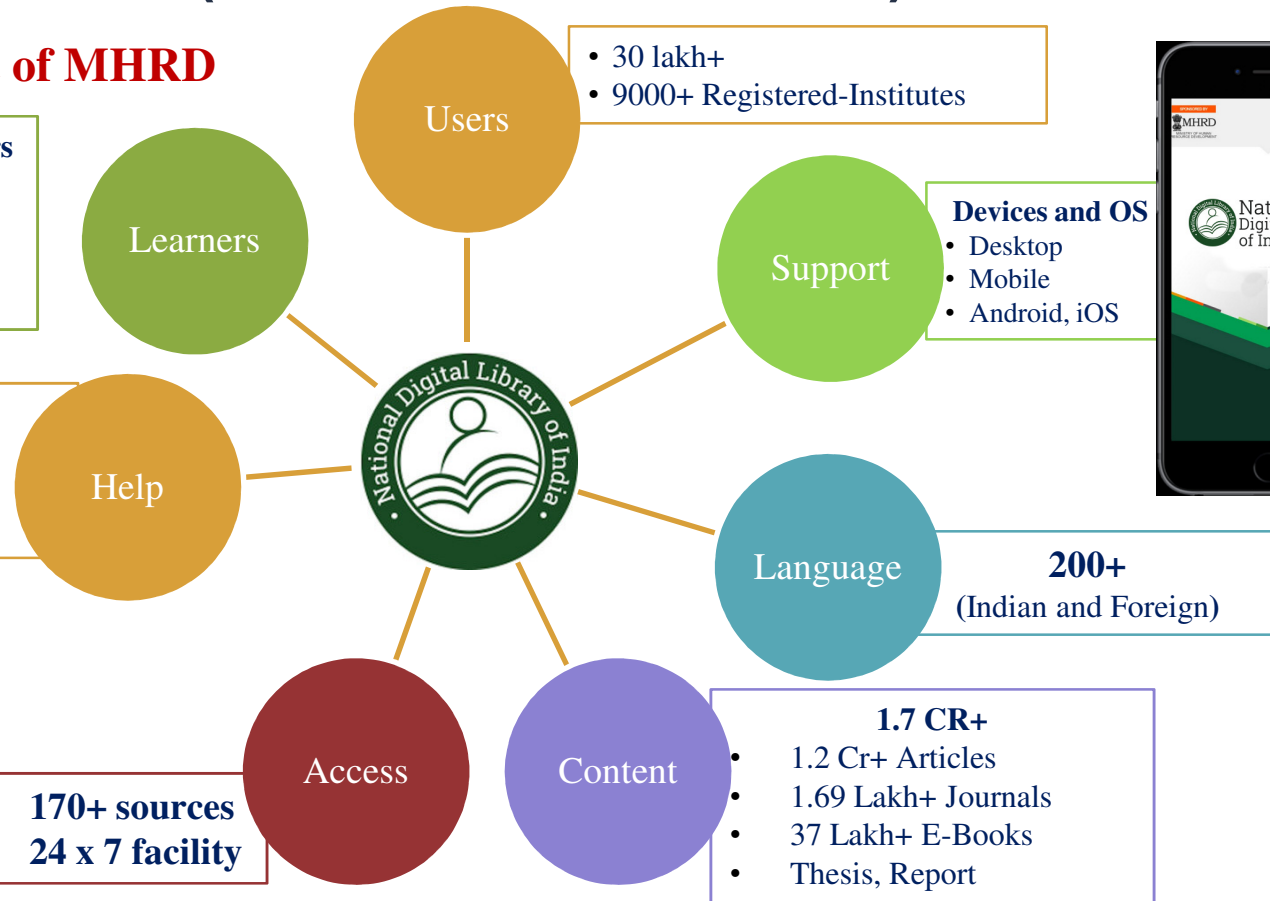
- E-learning environments
- Inter-linked exploration
- Preparation of entrance and competitive examination

200+  
(Indian and Foreign)



- 170+ sources
- 24 x 7 facility

- 1.7 CR+
- 1.2 Cr+ Articles
- 1.69 Lakh+ Journals
- 37 Lakh+ E-Books
- Thesis, Report





Digital Platform developed for GIAN



Ministry of Human Resource Development  
Government of India

- Home
- Live Lectures
- Objective&Guidelines
- Member Institutes
- Contact
- Courses Registration / Participant Login
- Login



Upcoming Course

Building Information Modelling (bim) In Construction

from 24-Jul-2018 at Indian Institute Of Technology Bombay



AREA/SECTION

- Architecture, Design, Planning and Heritage
- Chemical, Bio-Chemical & Material Sciences
- Earth & Environment Sciences
- Electronics, Electrical, Information & Communication Technology
- Humanities & Liberal Arts
- LAW
- Other Categories / Interdisciplinary Categories
- Life Sciences & Healthcare
- Mathematical & Computer Sciences
- Management
- Mechanical Sciences & Infrastructure
- Physical Sciences
- Social Sciences

Proposal Submission

Find out information about Proposal Submissions by both Indian and Foreign Faculty.

Proposal Tracking

Use this option for knowing status of proposals uploaded at the GIAN Server by Indian Institutions.

Approved Courses

Till date 1649 courses have been approved. This list also contains details of Foreign Faculty associated with each course.

Upcoming Courses

Climate from 23-Jul-2018  
Sustainable Roadways – Design, Construction And Maintenance

Courses as on (18-07-2018):

- 1649 Approved (including 43 withdrawn)
- 132 Upcoming
- 1142 Completed

- 200+ academic institutions
- 700+ academicians (Science and Technology and Arts)

- 70 countries
- Mutual interaction
- Human networking
- Video lectures and notes



IIT Kharagpur

# Talk to 10K Teachers Program

National Mission on Education through Information and Communication Technology (NMEICT)



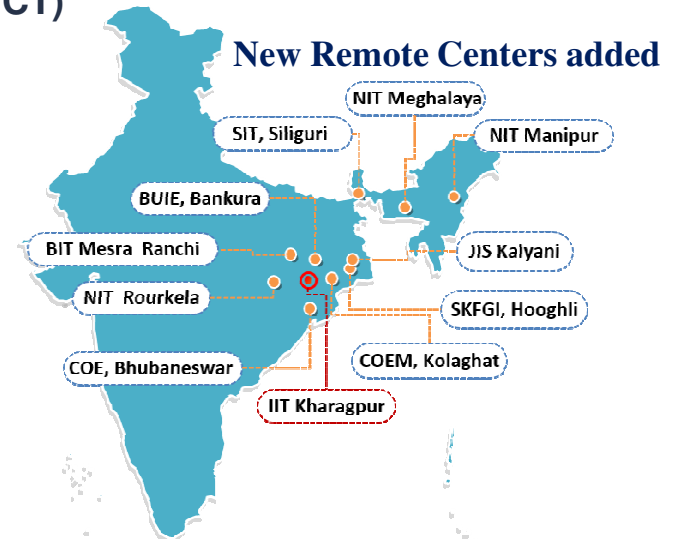
## Digital Platform developed for T10KT

It is a unique platform implemented by IIT Kharagpur

Train technical teachers from various engineering colleges/ institutions across India

Provide video recordings of workshop lectures and resources as open source.

Received Digital India Excellence Award 2017



## Workshops Conducted on:

- Fluid Mechanics
- Analog Electronics
- Signals and Systems
- Design of Algorithms
- Electric Power System
- Introduction to Machine Learning
- Introduction to Structural Engineering

# SWAYAM

(Study Webs of Active-learning for Young Aspiring Minds)



## SWAYAM

- Attached through NPTEL (National Programme on Technology Enhanced Learning)

## Courses

- 600 web and video courses
- All major branches of engineering and physical sciences
- Undergraduate and Postgraduate levels

## Updates

- 740 Courses are Completed as on April 2018

## SWAYAMPURABHA

- Attached through Centre For Educational Technology (CET)

## Project

- Dissemination of engineering and science education

## Connectivity

- DTH Channels



# Innovation Drives (Hackathons)



State and National Levels Events



**Kshitij** (Asia's largest Techno-management annual fest)



**App Development Contest**

- Organized by IBM & Entrepreneurship Cell, IIT Kharagpur
- Java, Node.js, Python, Ruby etc.

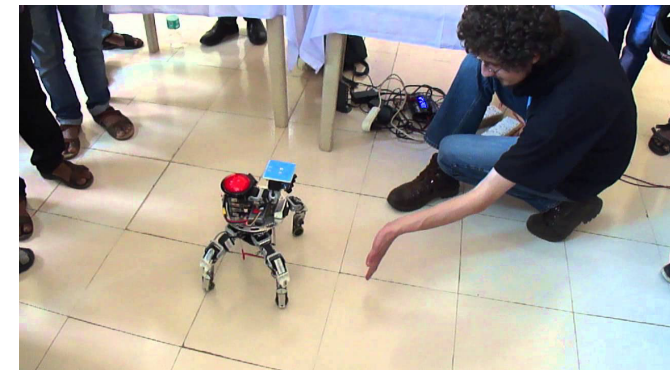


**Nationwide Hackathon**

- BTCXIndia - Bitcoin exchange
- Blockonomics - India-based blockchain data platform
- Technology Robotix Society - First autonomous robots of IIT KGP
- Smart India Hackathon 2018 - 9 teams across the country



**SIHH 2018** - Waste Management, Automobile/Smart Vehicles, etc.



# National Digital Payment Mission



## VISAKA

- VITTIYA SAKSHARTA ABHIYAN (*digitally enabled and cashless economic system*)

## MoU SBI and IIT Kharagpur

- Collaborate on Fin-Tech and Innovation



## Awareness

- Students and staff members influence others

## Digital Payment Environment

- Retailing shops
- Market areas
- Hostels
- Canteens



# Government, Industry and Academic Partnerships



## Ministry of Rural Development, GOI



- CoE of Big Data analytics in Rural Development
- Apply high end Data Science and Analytics for Rural Development
- Goals of Human development and social convergence



## Capillary Technologies Limited



- CoE in Artificial Intelligence (AI)
- Computing infrastructure, hardware simulation platforms, software and designing the coursework.
- AI for solving industrial, scientific and social problems of retail, industry 4.0 or manufacturing



## Samsung Innovation Lab



- Internet of Things (IoT) and Tizen-based operating systems
- Train students on emerging technologies



IIT Kharagpur

