

## Section 1: Policy And Institutionalization Of I&E Activities In HEIs (Academic Calendar Year 2020-21 & 2021-22)

### 1.1) Adoption Level of Innovation and Entrepreneurship (I&E) Policy in HEIs: Registration; Policy Formulation; Policy Implementation

Completion of Action Items (status as on 7th November 2022 )	Status
Registered in the NISP portal for I&E Policy Adoption	Yes
Institute has Formulated an Innovation and Entrepreneurship (I&E) Policy	No
Institute has Action Plans for Implementation of the I&E Policy	Yes

#### Contact:

Faculty Name:	Dr Saket Jeswani
Designation:	Associate Professor

### 1.2) Performance Level of Institution's Innovation Councils (IICs) Established in HEIs: Scores and Stars Obtained

Annual Performances of IIC Institute	Stars Secured
IIC 1.0 (2018-19)	
IIC 2.0 (2019-20)	0
IIC 3.0 (2020-21)	2
IIC 4.0 (2021-22)	3.5

#### Contact:

IIC President of the Institute:	Dr. R D Patidar
Designation:	Vice Chancellor

### 1.3) Activeness of Trained Innovation Ambassadors in Driving Campus I&E Ecosystems in HEIs: Trained IA/HEI and Nos of Prescribed Activities undertaken by IA

Sr. No.	Name of the Faculty IA	Level of Training	No of I&E Expert Talks/Sessions Conducted
1	Dr. Trinath Talapaneni	Advance	1
2	Dr R. S. Singh	Advance	1
3	Dr Sandeep Biswal	Advance	1
4	Dr Sandeep Biswal	Advance	0
5	Dr. I.A. Qadri	Basic	0
6	Dr Vikas Kumar	Advance	1
7	Prof Uma Shankar Pandey	Basic	1
8	Dr Swapnasarit Kar	Advance	1
9	Mr Bhupendra Tripathi	Basic	1
10	Dr Himanshu Vaishnaw	Basic	1
11	Dr. Rekha Sharma	Advance	1
12	Dr Satish Kanhed	Advance	1
13	Dr Sanjay Singh	Advance	1
14	Dr Deepayan Priyadarshi	Basic	1

### 1.4) Participation in KAPILA/SIH Program

HEI Registered in the KAPILA Portal	U-0832	Yes
HEI Participated in the Smart India Hackathon (2022)	U-0832	Yes

## Section 2: Teaching and Learning: Academic Programs related to Innovation and Entrepreneurship (I&E) Offered by the HEI

## 2.1) Academic Courses in Innovation, Entrepreneurship and IPR

Srno	Title of Course	Course Code	Academic Year	Type of Course	Level of Course	Course Offering Department/ Centre/ Unit Name	Total Credit Score	Course Start Date
1	Entrepreneurship and Innovation	MGT-302	2020-21	Core Course	Master	School of Management	4	15-02-2021 00:00:00
2	Entrepreneurship and Innovation	MGT-302	2021-22	Core Course	Master	School of Management	4	02-03-2022 00:00:00
3	Entrepreneurship	MGT-B-602	2021-22	Core Course	Bachelor	School of Management	4	02-03-2022 00:00:00
4	Design Thinking	SOE-B-CE510	2021-22	Core Course	Bachelor	Department of Civil Engineering	2	24-08-2021 00:00:00
5	Design Thinking	SOE-B-MME510	2021-22	Core Course	Bachelor	Department of Metallurgical Engineering	2	24-08-2021 00:00:00
6	Disaster Management	SOE-B-CE305	2021-22	Core Course	Bachelor	Department of Civil Engineering	2	03-09-2021 00:00:00
7	Principles of Management	SOE-B-ME610	2021-22	Core Course	Bachelor	Department of Mechanical Engineering	2	21-02-2022 00:00:00
8	Principles and Practice of Management	MGT 101	2020-21	Core Course	Master	School of Management	4	24-08-2020 00:00:00
9	Principles and Practice of Management	MGT 101	2021-22	Core Course	Master	School of Management	4	23-08-2021 00:00:00



## 2.2) Non-Academic Courses in Innovation, Entrepreneurship and IPR

Srno	Title of Course	Academic Year	Type of Certificate Program	Certificate Program/MDP/FDP/EDP Sponsored/Supported by	Certificate Program Offering Department/ Centre/ Unit Name	Program Start Date
1	Mechatronics Automation and Robotics	2020-21	Faculty Development Program (FDP)	Industry/Non-Govt.	Department of Mechanical Engineering	03-08-2020 00:00:00
2	CNC Machining Techniques	2020-21	Short-term Certificate Program	Self Sponsored/Supported	Department of Mechanical Engineering	10-05-2021 00:00:00
3	Summer Training on ANSYS	2020-21	Short-term Certificate Program	Central Govt. Agency	Department of Mechanical Engineering	25-05-2020 00:00:00
4	Basics of AUTOCAD 2D and 3D	2021-22	Short-term Certificate Program	Self Sponsored/Supported	Department of Mechanical Engineering	08-08-2022 00:00:00
5	Basics of AUTOCAD	2021-22	Short-term Certificate Program	Self Sponsored/Supported	Department of Mechanical Engineering	12-07-2021 00:00:00
6	ANSYS Hands on Workshop	2021-22	Short-term Certificate Program	Self Sponsored/Supported	Department of Mechanical Engineering	04-05-2022 00:00:00
7	Robotic Welding Technology	2021-22	Short-term Certificate Program	Industry/Non-Govt.	Department of Mechanical Engineering	05-04-2022 00:00:00
8	Advanced Welding Technology	2021-22	Short-term Certificate Program	Industry/Non-Govt.	Department of Mechanical Engineering	06-12-2021 00:00:00

<b>Srno</b>	<b>Title of Course</b>	<b>Academic Year</b>	<b>Type of Certificate Program</b>	<b>Certificate Program/MDP/FDP/EDP Sponsored/Supported by</b>	<b>Certificate Program Offering Department/ Centre/ Unit Name</b>	<b>Program Start Date</b>
9	ANSYS Mechanical and CFD	2021-22	Faculty Development Program (FDP)	Industry/Non-Govt.	Department of Mechanical Engineering	22-11-2021 00:00:00
10	Metal Joining Technology	2021-22	Short-term Certificate Program	Self Sponsored/Supported	Department of Mechanical Engineering	16-05-2022 00:00:00
11	Summer internship on Advanced Welding Technology	2021-22	Short-term Certificate Program	Self Sponsored/Supported	Department of Mechanical Engineering	06-06-2022 00:00:00
12	Energy management in Power Plants	2021-22	Faculty Development Program (FDP)	Self Sponsored/Supported	Department of Mechanical Engineering	05-09-2022 00:00:00
13	FDP ON EMERGING TRENDS IN POWER ELECTRONICS AND POWER SYSTEM	2020-21	Faculty Development Program (FDP)	Self Sponsored/Supported	Department of Electrical Engineering	24-08-2020 00:00:00
14	FDP ON POWER ELECTRONICS APPLICATIONS ON ELECTRIC VEHICLE	2021-22	Faculty Development Program (FDP)	Self Sponsored/Supported	Department of Electrical Engineering	27-06-2022 00:00:00
15	RESEARCH SEMINAR SERIES	2021-22	Short-term Certificate Program	Self Sponsored/Supported	Department of Electrical Engineering	08-04-2021 00:00:00
16	Recent Advances in Process Metallurgy	2020-21	Faculty Development Program (FDP)	Self Sponsored/Supported	Department of Metallurgical Engineering	13-07-2020 00:00:00

Srno	Title of Course	Academic Year	Type of Certificate Program	Certificate Program/MDP/FDP/EDP Sponsored/Supported by	Certificate Program Offering Department/ Centre/ Unit Name	Program Start Date
17	Introduction to STAAD Pro	2021-22	Short-term Certificate Program	Self Sponsored/Supported	Department of Civil Engineering	02-06-2021 00:00:00
18	Data Analysis Project cases	2021-22	Short-term Certificate Program	Industry/Non-Govt.	Department of Computer Science Engineering	15-03-2022 00:00:00
19	Workshop on Python with Data Science	2021-22	Short-term Certificate Program	Industry/Non-Govt.	Department of Computer Science Engineering	13-12-2021 00:00:00

### Section 3: Pre-Incubation and Incubation Infrastructure & Facilities are Currently in Operation to Promote I&E Agenda (AY 2020-21 & 2021-22)

#### 3.1) Existence of Pre-Incubation Facility (Tinkering Lab/Makers' Space/Design Centre/New Gen IEDC/IEDC/EDC/Innovation Cell/Startup Cell) (>= 600 Sq. Ft. Floor Area)

Sr. No.	Type of the Unit	Name of Unit	In-charge Name	Govt. Schemes
1	Innovation Cell	OPJU innovation center	Deepayan Priyadarshi	Mentoring Support,Pre-Incubation Facility Support (Idea to Prototype and Innovative Business Plan Development)

#### 3.2) Existence of Incubation Facility (>= 1500 Sq. Ft. Floor Area)

Sr. No.	Name of Unit	In-charge Name	Govt. Schemes
1	OPJU Innovation Center	Deepayan Priyadarshi	CSR/Private,Own Resource

### 3.3) Existence of IPR Cell / Patent Facilitation Unit / Technology Transfer Centre at the institute

Sr. No.	Type of the Unit	Name of Unit	In-charge Name	Govt. Schemes
1	IPR Cell	OPJU Innovation Center	Dr Satish Kanhed	Mentoring Support,Seed Grant Support,Pre-Incubation Facility Support (Idea to Prototype and Innovative Business Plan Development),Incubation Facility Support (Innovative Business Model to Startup and Market Linkage & Growth Stage)

## Section 4: Generation and Support of Prototypes / Innovations at HEI and Recognition received (AY 2020-21 & 2021-22)

### 4) Total no. of Innovations (Verified and Recommended) in Different TRLs (4-9) are Recorded in the YUKTI National Innovation Repository of the IIC Institute ( Status as on 7th November 2022 )

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagemer of Team Lead in Institute
1	Drone (Multipurpose)	Independent Assignment/Non-academic Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Somesh Chandra	Student
2	Smart Web App for Enhancing Tourism and related Revenue in Chhattisgarh	Independent Assignment/Non-academic Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Dr. Nitesh K Bharadwaj	Faculty

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagemer of Team Lead in Institute
3	Ticketless Entry System To Monuments Using Barcode Technology	Academic Research Assignment/Industry Sponsored Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	abhishek agrawal	Student
4	Sonic Solaric-Transportation is transforming and so we are	Academic Research Assignment/Industry Sponsored Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	Dharmender Singh Saini	Faculty

## Section 5: Start-ups/Ventures Established and Supported at HEI and & Recognitions Received (AY 2020-21 & 2021-22)

**5) Total no of Ventures/Startups (Verified and Recommended) are Recorded in the YUKTI National Innovation Repository of the IIC Institute (Status as on 7th November 2022 )**

Sr. No.	Startup/Venture Name	Startup/Venture Registered as	CIN No/LLP/OPC/RC No
1	Mitti Agrotech organics pvt ltd	Private Limited Firm (Pvt. Ltd.)	U01100OR2022PTC040547  <b>View Document</b> ( <a href="https://api.mic.gov.in/uploads/institutes/innovationcontest/Innovation7861862.pdf">https://api.mic.gov.in/uploads/institutes/innovationcontest/Innovation7861862.pdf</a> )



Sr. No.	Startup/Venture Name	Startup/Venture Registered as	CIN No/LLP/OPC/RC No
2	Arthashastra Intelligence Databases Private Limited	Private Limited Firm (Pvt. Ltd.)	U72900TG2019PTC135283  <b>View Document</b> ( <a href="https://api.mic.gov.in/uploads/institutes/innovationcontest/Innovation9311513.jpg">https://api.mic.gov.in/uploads/institutes/innovationcontest/Innovation9311513.jpg</a> )
3	Chalbo India Private Limited	Private Limited Firm (Pvt. Ltd.)	U63090CT2018PTC008443  <b>View Document</b> ( <a href="https://api.mic.gov.in/uploads/institutes/innovationcontest/Place1112201.jpg">https://api.mic.gov.in/uploads/institutes/innovationcontest/Place1112201.jpg</a> )

## Section 6: Collaboration with Other Incubation Units, HEIs and Industry Associations to Strengthen Better Services and Support to Innovation & Startups at HEI (AY 2020-21 & 2021-22)

### 6) Collaboration with Other Incubation Units, HEIs and Industry Associations to Strengthen Better Services and Support to Innovation & Startups at HEI (AY 2020-21 & 2021-22)

Sr. No.	Collaborated Agency Name	Collaborated Agency Type	Period of Collaboration (No. of Years)	Current Status of Collaboration	Date of MOU / Agreement Signed on
1	TATA Counsultancy Services Ltd.	Corporate/Industry Association	0003	Active	11-02-2021
2	NALWA STEEL AND POWER LIMITED, RAIGARH (C.G.)	Corporate/Industry Association	0005	Active	28-10-2021
3	JINDAL POWER LIMITED, TAMNAR, RAIGARH (C.G.)	Corporate/Industry Association	0005	Active	28-10-2021

<b>Sr. No.</b>	<b>Collaborated Agency Name</b>	<b>Collaborated Agency Type</b>	<b>Period of Collaboration (No. of Years)</b>	<b>Current Status of Collaboration</b>	<b>Date of MOU / Agreement Signed on</b>
4	Jindal Steel and Power Limited (JSPL), Raigarh	Corporate/Industry Association	0005	Active	10-11-2021
5	CSIR-NATIONAL METALLURGICAL LABORATORY, JAMSHEDPUR	Govt. Agency (Central)	0002	Active	07-02-2022
6	CSIR- Advance Material And Processes Research Institute (AMPRI)	Govt. Agency (Central)	0005	Active	25-04-2022
7	GHANA INSTITUTE OF MANAGEMENT AND PUBLIC ADMINISTRATION (GIMPA)	Educational Institute	0005	Active	04-04-2022
8	Amicus Technology, Raipur	Corporate/Industry Association	0003	Active	17-02-2022
9	The Indian Institute of Welding, Kolkata	Corporate/Industry Association	0005	Active	05-02-2021
10	Association of Welding Products Manufacturer (AWPM), Fort, Mumbai	Corporate/Industry Association	0005	Active	29-07-2021
11	CSIR-Institute of Minerals and Materials Technology, Bhubaneswar, Odisha	Educational Institute	0005	Active	07-12-2021
12	Government Polytechnic, Sonapur	Educational Institute	0001	Active	01-09-2021
13	Government Polytechnic, Gariyaband	Educational Institute	0001	Active	05-10-2021
14	Government Polytechnic, Balangir	Educational Institute	0005	Active	04-10-2021
15	FROYO TECHNOLOGIES PRIVATE LIMITED	Corporate/Industry Association	0005	Active	06-09-2021

<b>Sr. No.</b>	<b>Collaborated Agency Name</b>	<b>Collaborated Agency Type</b>	<b>Period of Collaboration (No. of Years)</b>	<b>Current Status of Collaboration</b>	<b>Date of MOU / Agreement Signed on</b>
16	NATIONAL INSTITUTE OF DISASTER MANAGEMENT, NEW DELHI	Govt. Agency (Central)	0005	Active	22-03-2021
17	FICE EDUCATION PRIVATE LIMITED [Intel approved partner, India	Educational Institute	0005	Active	16-03-2021
18	B.INCUBE INCUBATION CENTER, BILASPUR	Incubation Unit	02	Active	14-10-2022
19	Jose Maria College Foundation, Inc, Phillpiens	Educational Institute	0003	Active	26-08-2022
20	RESEARCH FOR RESURGENCE FOUNDATION, NAGPUR	Educational Institute	0005	Active	28-09-2021
21	SHRI SHRI UNIVERSITY	Educational Institute	0005	Active	29-10-2021
22	Sohare University, Sultanate of Oman	Educational Institute	0005	Active	27-12-2021
23	Bimal Refractories Pvt. Ltd., Saraipali, Raigarh	Corporate/Industry Association	0005	Active	03-09-2020
24	CHANGWON NATIONAL UNIVERSITY, KOREA	Educational Institute	0005	Active	13-10-2021
25	JAYASWAL NECO INDUSTRIES LIMITED, SILTARA, RAIPUR	Corporate/Industry Association	0005	Active	01-04-2022

## Section 7: Intellectually Property (IP) Generated and Commercialization

### 7.1) IPR Filed and Published (Copyrights & Design only)

Sr. No.	Title/Name of IP (Copyright/Design Only)	Type of IP	IP Registration Number of Copyright/Design	Date of Filed/Published	Has this IP(Copyright & Designs Only) been Commercialized/Transferred to Industry/Startup/Society?
No Data Found					

### 7.2) Patents Filed by HEI

Sr. No.	Title/Name of Patent	IP Registration Number	Date of Filed/Published
1	MICROWAVE ASSISTED STEEL MAKER AND CONVERTER (MASMAC)	202021047105	28-10-2020

### 7.3 & 7.4) Patent Published / Granted Data

Sr. No.	Patent Registration Application No	Patent Title	Patent Application Date	Status of Patent Applications	Patent Published / Granted Calendar Year	Institute applied the Patent as
1	2021106705	A SYNTHESIS PROCESS OF DOWN-CONVERSION Ba <sub>3</sub> NaLa(PO <sub>4</sub> ) <sub>3</sub> F PHOSPHOR FOR ENHANCEMENT IN SOLAR CELL EFFICIENCY	24-08-2021	Granted	2021	Co-Applicant
2	2021101683	A process for fabricating aluminum, boron carbide-based aluminum matrix composites using powder metallurgy route	01-04-2021	Granted	2021	Applicant
3	2021107426	A NOVEL ACOUSTIC FLUIDIZED BED DEVICE FOR HEAT TRANSFER APPLICATION	25-08-2021	Published	2021	Applicant

Sr. No.	Patent Registration Application No	Patent Title	Patent Application Date	Status of Patent Applications	Patent Published / Granted Calendar Year	Institute applied the Patent as
4	202141041225	DEVELOPMENT OF BIG DATA ANALYTICS FOR INTELLIGENT INDUSTRIAL MANUFACTURING BASED ON WIRELESS AND IOT TECHNOLOGY	14-09-2021	Published	2021	Co-Applicant
5	201921036338	STEAM GENERATION DEVICE FOR STEAM TURBINE	09-10-2019	Granted	2021	
6	350918	PROCESS FOR SYNTHESIS OF Ce <sup>3+</sup> , Eu <sup>2+</sup> CO-DOPED BaSiF <sub>6</sub> PHOSPHOR	09-04-2019	Granted	2020	
7	201921049003	Welding with the help of Microwave Application	29-11-2019	Published	2020	
8	201921049004	Device for Effective Generation and Utilization of Steam (DEGUS) for Steam Turbine	29-11-2019	Published	2020	
9	201921049005	Use of solar energy in sintering and hence welding of metal/ ceramic powders	29-11-2019	Published	2020	

### 7.5) IP Commercialized and Transferred to Industry/Startup

Sr. No.	Name of Technology Licenced/Transferred/Commercialized	Technology Type	Patent/Licence Holder name (Institute Co-ownership is Must)	Technology Transferred to	Name of Licensee	D T T
No Data Found						



