

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	No

Contact:

Faculty Name:	Prof. Manoj Kumar Mishra
Designation:	Professor
Email ID:	mkmishra@nitrkl.ac.in
Mobile No.	9437408039

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)	1
IIC 3.0 (2020-21)	0

Annual Performances of IIC Institute	Stars Secured
IIC 4.0 (2021-22)	1

Contact:

IIC President of the Institute:	Prof. Manoj Kumar Mishra
Designation:	Professor
Email ID:	mkmishra@nitrkl.ac.in
Mobile No.	9437408039

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	Prof. Dibya Prakash Jena	Basic	0
2	Prof. Archana Mallick	Basic	0
3	Prof. Manoj Kumar Moharana	Advance	0
4	Prof. Prasoon Kumar	Basic	0
5	Prof. Manoj Kumar Mishra	Basic	0

1.4) Participation in KAPILA/SIH Program

HEI Registered in the KAPILA Portal	U-0357	Yes
HEI Participated in the Smart India Hackathon (2022)	U-0357	No

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	Course End Date	Total Duration of the Course (in Days)	Total Numbers of Contact Hours of the Course	Mode of Delivery	Total Numbers of Beneficiaries/Participants Undergone the Course
1	TECHNOLOGY AND INNOVATION MANAGEMENT	SM 6622	2020-21	Core Course	Master	School of Management	3	02-01-2020 00:00:00	30-04-2020 00:00:00	119	40	Offline	19
2	TECHNOLOGY AND INNOVATION MANAGEMENT	SM 6622	2021-22	Core Course	Master	School of Management	3	01-01-2022 00:00:00	30-04-2022 00:00:00	119	40	Offline	42
3	Art and Aesthetics in Design	ID2102	2020-21	Core Course	Bachelor	Industrial Design	3	26-07-2021 00:00:00	30-11-2021 00:00:00	128	40	Online	46
4	Art and Aesthetics in Design	ID2102	2021-22	Core Course	Bachelor	Industrial Design	3	26-07-2022 00:00:00	30-11-2022 00:00:00	128	40	Offline	48
5	Design Thinking	ID2104	2020-21	Core Course	Bachelor	Industrial Design	3	26-07-2021 00:00:00	30-11-2021 00:00:00	128	40	Online	46
6	Design Thinking	ID2104	2021-22	Core Course	Bachelor	Industrial Design	3	26-07-2022 00:00:00	30-11-2022 00:00:00	128	40	Offline	48
7	Communication Design	ID2106	2020-21	Core Course	Bachelor	Industrial Design	3	26-07-2021 00:00:00	30-11-2021 00:00:00	128	40	Online	46
8	Communication Design	ID2106	2021-22	Core Course	Bachelor	Industrial Design	3	26-07-2022 00:00:00	30-11-2022 00:00:00	128	40	Offline	48
9	Geometric and Solid Modelling	ID3207	2020-21	Core Course	Bachelor	Industrial Design	3	26-01-2021 00:00:00	31-05-2021 00:00:00	125	40	Online	44

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	Course End Date	Total Duration of the Course (in Days)	Total Numbers of Contact Hours of the Course	Mode of Delivery	Total Numbers of Beneficiaries/Participants Undergone the Course
10	Geometric and Solid Modelling	ID3207	2021-22	Core Course	Bachelor	Industrial Design	3	26-01-2022 00:00:00	31-05-2022 00:00:00	125	40	Offline	46
11	Business Research Methodology	SM6611	2020-21	Core Course	Master	School of Management	3	01-01-2021 00:00:00	30-04-2021 00:00:00	119	40	Online	42
12	Business Research Methodology	SM6611	2021-22	Core Course	Master	School of management	3	01-01-2022 00:00:00	30-04-2022 00:00:00	119	40	Offline	42
13	Product Development Laboratory	MM3123	2020-21	Core Course	Bachelor	Metallurgical and Materials Engineering	1	29-08-2021 00:00:00	31-12-2021 00:00:00	125	40	Online	65
14	Product Development Laboratory	MM3123	2021-22	Core Course	Bachelor	Metallurgical and Materials Engineering	1	28-08-2022 00:00:00	31-12-2022 00:00:00	126	40	Offline	62

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	Program End Date	Total Duration of the Course (in Days)	Total Numbers of Contact Hours of the Course	Mode of Delivery	Total Numbers of Beneficiaries/Participants Undergone the Certificate Program
1	Intellectual Property Rights (IPR)	2021-22	Faculty Development Program (FDP)	Self Sponsored/Supported	School of Management	21-02-2022 00:00:00	25-02-2022 00:00:00	5	30	Online	40

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	Program End Date	Total Duration of the Course (in Days)	Total Numbers of Contact Hours of the Course	Mode of Delivery	Total Numbers of Beneficiaries/Participants Undergone the Certificate Program
2	Intellectual Property Rights- A Fuel for Building and Sustaining Brands	2021-22	Faculty Development Program (FDP)	Central Govt. Agency	School of management	21-03-2022 00:00:00	25-03-2022 00:00:00	5	30	Blended Mo	50
3	A Five Day Online AICTE Training and Learning (ATAL) Academic FDP Program On Cultivating Excellence in Implementation of Computational Science for Scientific and Technological Innovations	2021-22	Faculty Development Program (FDP)	Central Govt. Agency	Metallurgical and Materials Engineering	14-06-2021 00:00:00	18-06-2021 00:00:00	5	30	Online	200

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	Contact no	Email	Govt. Schemes
1	Start-Up Cell	PADHAI OP	Pratyush Sahoo	9861906422	pratyush.manor@gmail.com	Mentoring 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)

Sr. No.	Type of the Unit	Name of Unit	In-charge Name	Contact no	Email	Govt. Schemes
2	Start-Up Cell	KIDDY MAITRI	MANISH MAHAPATRA	7598641672	mahapatra.manish@rediffmail.com	Mentoring 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)
3	Start-Up Cell	SkilledSet	Subrat Kumar Rout	7008535760	subratkumar.9169@gmail.com	Mentoring 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)

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

Sr. No.	Name of Unit	In-charge Name	Contact no	Email	Govt. Schemes
1	Shosi Food Exports Private Limited	Shovanjit Khatua	7894960319	skhatua6@gmail.com	DST/NSTEDB/NIDHI
2	DAIYANTAKA AGRO OPC PVT. LTD.	SAROJ KARMI	8144652026	sarojkarmiofsbp2@gmail.com	DST/NSTEDB/NIDHI
3	Awalk Innovations Pvt Ltd	Vamsi Krishna	8018133231	ismavg.krishna@gmail.com	DST/NSTEDB/NIDHI
4	Humaps Pvt Ltd	Anup Routray	9040664424	admin@humaps.in	DST/NSTEDB/NIDHI
5	Fastech Fashions Private Limited	Biswojeet Kiro	8658946920	biswakro@gmail.com	DST/NSTEDB/NIDHI
6	MYORG360 INNOVATIONS PRIVATE LIMITED	ABHIJEET SAHOO	7008117224	abhijeetsahoo006@gmail.com	DST/NSTEDB/NIDHI,MeitY,Other Central/State Government
7	YAREV TECHNOLOGY PRIVATE LIMITED	Avinash Kumar	7978933951	ceo@yarevtechnology.com	DST/NSTEDB/NIDHI,MeitY,Other Central/State Government
8	JayMa Bio Innovations Private Limited	Bunushree Behera	9937987041	bunushree1991@gmail.com	DST/NSTEDB/NIDHI,MeitY,Other Central/State Government
9	Fulkerya Design Private Limited	Udit Oram	9901261041	udit.oram@fulkerya.com	DST/NSTEDB/NIDHI,MeitY,Other Central/State Government
10	Clavictor Academy Pvt. Ltd.	Suraj Kumar Nayak	7978329442	contact@clavimate.com	DST/NSTEDB/NIDHI,MeitY,Other Central/State Government
11	Coratia Technologies Pvt. Ltd.	Debendra Pradhan	7291052399	coratech2020@gmail.com	DST/NSTEDB/NIDHI,MeitY
12	YOSHINO ENERGY	VIKRAM DAS	7008294952	yoshinoenergypvtltd@gmail.com	DST/NSTEDB/NIDHI,MeitY
13	Biotez Agrinovation Pvt. Ltd.	Shitarashmi Sahu	7004803224	shitarashmi.nitrkl@gmail.com	DST/NSTEDB/NIDHI,MeitY,Other Central/State Government
14	Ewarn System Private Limited	Harshit Srivastava	7437985137	harshitsrivastava2345@gmail.com	DST/NSTEDB/NIDHI,MeitY
15	KOEL FRESH	ASUTOSH NAYAK	9667618785	ceo@koelfresh.com	DST/NSTEDB/NIDHI,MeitY,Other Central/State Government

Sr. No.	Name of Unit	In-charge Name	Contact no	Email	Govt. Schemes
16	Publiconn Digital Private Limited	Akash Kumar Sahu	9439187339	akashsahu611@gmail.com	DST/NSTEDB/NIDHI,MeitY,Other Central/State Government

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	Contact no	Email	Govt. Schemes
1	IPR Cell	IPR CELL,NIT ROURKELA	Prof. SANTANU PARIA (2021-2022))	9437684864	sparia@nitrkl.ac.in	Mentoring Support,Seed Grant Support,Pre-Incubation Facility Support (Idea to Prototype and Innovative Business Plan Development)
2	Technology Transfer Centre /TTO	IPR CELL, NIT ROURKELA	Prof. Saurav Chatterjee(July 2022 onwards)	9938485254	saurav@nitrkl.ac.in	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 Engagement of Team Lead in Institute	Contact No	Email	Total Grants Received (from all sources)	Grant Support Received from Institution/Incubation
1	The objective of the AD module is to develop an automatic accident detection and an alert system for smart city applications. Here, a technology of integrated platform is created consisting of hardware, software, and cloud service for the automatic detect	Academic Research Assignment/Industry Sponsored Project	2021-22	TRL 7 : Demonstration system operating in operational environment at pre-commercial scale	Harshit Srivastava	Student		harshitsrivastava2345@gmail.com	0	0
2	Sustainable Eco-friendly Plastic Products Alternative from Kombucha Cellulose Fermentation	Academic Research Assignment/Industry Sponsored Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Bunushree Behera	Entrepreneur		bunushree1991@gmail.com	0	0

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagement of Team Lead in Institute	Contact No	Email	Total Grants Received (from all sources)	Grant Support Received from Institution/Incubation
3	Daityantak agro opc pvt ltd	Independent Assignment/Non-academic Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	SAROJ KARMI	Entrepreneur		sarojkarmiofsbp2@gmail.com	3.6	0
4	Daityantak agro opc pvt ltd	Independent Assignment/Non-academic Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	SAROJ KARMI	Entrepreneur		sarojkarmiofsbp2@gmail.com	3.6	0
5	Saahaaz	Independent Assignment/Non-academic Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	Akash Kumar Sahu	Entrepreneur		akashsahu611@gmail.com	0	0
6	KIDDY MAITRI	Independent Assignment/Non-academic Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	MANISH MAHAPATRA	Entrepreneur		mahapatra.manish@rediffmail.com	0	0

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagement of Team Lead in Institute	Contact No	Email	Total Grants Received (from all sources)	Grant Support Received from Institution/Incubation
7	Biofertilizer from Industrial Waste and Coffee roasting machine with multiple fuel capability	Independent Assignment/Non-academic Study Project	2020-21	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Shitarashmi Sahu	Entrepreneur		shitarashmi.nitrkl@gmail.com	1800000	0
8	Sustainable and innovative organic farming technique.	Independent Assignment/Non-academic Study Project	2020-21	TRL 8 : First of a kind commercial system. Manufacturing issues solved	GOKUL MINZ	Entrepreneur		gokulminz@gmail.com	0	0
9	INTELLIGENT VIDEO SURVEILLANCE SYSTEM FOR AUTOMATIC CRIME DETECTION AND ALERT	Academic Research Assignment/Industry Sponsored Project	2020-21	TRL 7 : Demonstration system operating in operational environment at pre-commercial scale	Harshit Srivastava	Student		harshitsrivastava2345@gmail.com	0	0
10	Myorg360 Innovations Private Limited	Independent Assignment/Non-academic Study Project	2020-21	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	ABHIJEET SAHOO	Entrepreneur		abhijeetsahoo006@gmail.com	700000	0

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagement of Team Lead in Institute	Contact No	Email	Total Grants Received (from all sources)	Grant Support Received from Institution/Incubation
11	VISIBLE LIGHT PHOTO REACTOR	Independent Assignment/Non-academic Study Project	2020-21	TRL 9 : Full commercial application, technology available for consumers	Avinash Kumar	Entrepreneur		ceo@yarevtechnology.com	340000	720000

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	Coratia Technologies Pvt. Ltd.	Private Limited Firm (Pvt. Ltd.)	U72900OR2021PTC038315 View Document (https://api.mic.gov.in/uploads/institutes/innovationcontest/images/innovationcontest/idea/IC201912423_cin_copy_Product,Service)
2	YOSHINO ENERGY	Private Limited Firm (Pvt. Ltd.)	U35999OR2021PTC035679 View Document (https://api.mic.gov.in/uploads/institutes/innovationcontest/images/innovationcontest/idea/IC201912423_cin_copy_Product932214)

Sr. No.	Startup/Venture Name	Startup/Venture Registered as	CIN No/LLP/OPC/RC No
3	SkilledSet	Limited Liability Partnership Firm (LLP)	AAY-8164 View Document (https://api.mic.gov.in/uploads/institutes/innovationcontest/images/innovationcontest/idea/IC201912423_cin_copy_Product,Process,Service,BusineInnovation3508649.pdf)
4	DAIYANTAKA AGRO OPC PVT. LTD.	Private Limited Firm (Pvt. Ltd.)	U74999OR2018OPC028296 View Document (https://api.mic.gov.in/uploads/institutes/innovationcontest/images/innovationcontest/idea/IC201912423_cin_copy_Product280292)
5	DAIYANTAKA AGRO OPC PVT. LTD.	Private Limited Firm (Pvt. Ltd.)	U74999OR2018OPC028296 View Document (https://api.mic.gov.in/uploads/institutes/innovationcontest/images/innovationcontest/idea/IC201912423_cin_copy_Product852348)
6	Shosi Food Exports Private Limited	Private Limited Firm (Pvt. Ltd.)	U15400OR2021PTC038031 View Document (https://api.mic.gov.in/uploads/institutes/innovationcontest/images/innovationcontest/idea/IC201912423_cin_copy_Product,Proces)
7	JayMa Bio Innovations Private Limited	Private Limited Firm (Pvt. Ltd.)	U25209OR2022PTC038891 View Document (https://api.mic.gov.in/uploads/institutes/innovationcontest/images/innovationcontest/idea/IC201912423_cin_copy_Product,Proces)
8	Publiconn Digital Private Limited	Private Limited Firm (Pvt. Ltd.)	U74999OR2022PTC040716 View Document (https://api.mic.gov.in/uploads/institutes/innovationcontest/images/innovationcontest/idea/IC201912423_cin_copy_Product,ServicePlace6270220.pdf)
9	Clavictor Academy Pvt. Ltd.	Private Limited Firm (Pvt. Ltd.)	U80902OR2018PTC029318 View Document (https://api.mic.gov.in/uploads/institutes/innovationcontest/images/innovationcontest/idea/IC201912423_cin_copy_Service7510253)
10	MYORG360 INNOVATIONS PRIVATE LIMITED	Private Limited Firm (Pvt. Ltd.)	U72900OR2020PTC033565 View Document (https://api.mic.gov.in/uploads/institutes/innovationcontest/images/innovationcontest/idea/IC201912423_cin_copy_Product916668)

Sr. No.	Startup/Venture Name	Startup/Venture Registered as	CIN No/LLP/OPC/RC No
11	YAREV TECHNOLOGY PRIVATE LIMITED	Private Limited Firm (Pvt. Ltd.)	U63090OR2019PTC030451 View Document (https://api.mic.gov.in/uploads/institutes/innovationcontest/images/innovationcontest/idea/IC201912423_cin_copy_Product,Service)
12	Fulkerya Design Private Limited	Private Limited Firm (Pvt. Ltd.)	U74999OR2017PTC027819 View Document (https://api.mic.gov.in/uploads/institutes/innovationcontest/images/innovationcontest/idea/IC201912423_cin_copy_Product578392)
13	Ewarn System Private Limited	Private Limited Firm (Pvt. Ltd.)	U72900OR2020PTC033202 View Document (https://api.mic.gov.in/uploads/institutes/innovationcontest/images/innovationcontest/idea/IC201912423_cin_copy_Product,Service)
14	KOEL FRESH	Private Limited Firm (Pvt. Ltd.)	U01110OR2020PTC034261 View Document (https://api.mic.gov.in/uploads/institutes/innovationcontest/images/innovationcontest/idea/IC201912423_cin_copy_Product,Process,Service692995)
15	Biotez Agrinovation Pvt. Ltd.	Private Limited Firm (Pvt. Ltd.)	U01100OR2020PTC032698 View Document (https://api.mic.gov.in/uploads/institutes/innovationcontest/images/innovationcontest/idea/IC201912423_cin_copy_Product524358)

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	View
1	Indian Space Research Organization	Govt. Agency (Central)	2	Active	18-03-2021	View (/Uploads/Institute/ARI-U-0357/2021-22/CollaboratExternalAgency/MoU between NIT Rourkela & ISRO Govt.
2	Ministry of Electronics & Information Technology	Govt. Agency (Central)	5	Active	01-01-2020	View (/Uploads/Institute/ARI-U-0357/2021-22/CollaboratExternalAgency/MEITY (1)_20220912100709_202209231
3	Mahanadi Coal Fields Limited	Govt. Agency (Central)	3	Active	21-03-2020	View (/Uploads/Institute/ARI-U-0357/2021-22/CollaboratExternalAgency/MCL Agreement (1)_compressed_2022092
4	Department of Science And Technology (NIDHI-EIR)	Govt. Agency (Central)	2	Active	15-07-2020	View (/Uploads/Institute/ARI-U-0357/2021-22/CollaboratExternalAgency/MOU DST-NITRKL_compressed_2022092

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?
1	A PATHOLOGICAL GAIT DETECTION TOOL FOR HEALTHCARE APPLICATION	Copy Right	SW-14970/2021	11-10-2021	No

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?
2	A VISUALIZATION BASED ASSISTIVE TOOL FOR CLINICAL HUMAN GAIT ANALYSIS	Copy Right	SW-13605/2020	11-08-2020	No

7.2) Patents Filed by HEI

Sr. No.	Title/Name of Patent	IP Registration Number	Date of Filed/Published
1	Auto Emergency Vehicle Response And Tracking System	202031015375	15-05-2020
2	Superhydrophobic And Superoleophilic Macroporous Substrate For Oil Spill Cleanup And Process For Protecting A Metal Surface From Corrosion	202031018789	12-06-2020
3	Treatment Of Chromium Contaminated Leather Effluent Using Filamentous Fungal Biofilm	202031019664	12-06-2020
4	Multi-Sensor Based Real-Time System For Automatic Accident Detection And Intimation	202031028424	14-08-2020
5	Personalize Integrated Parking Management System For Smart Cities	202031030818	14-08-2020
6	A Method And System For Video Surveillance Based Automatic Crime Alert	202031030956	14-08-2020
7	Patient Specific Near-Net Shaped Uniaxially Pressed Ceramic Femoral Head And Acetabular Socket, And Fabrication Method Thereof (3Rd)	202042025944	09-11-2020
8	IoT Aware Health Monitoring System	202031052152	12-11-2020
9	Method For Preparation Of Ironditelluride Nanoparticles	202031055017	02-05-2021
10	A Method For Customized Safe Route Navigation System For Smart City Users	202031006684	13-03-2020
11	Thermal Encoding Using Shape Memory Alloy(Tesma)	202031008991	15-05-2020
12	Development Of Lightweight Fly Ash Angular Aggregates For Structural Applications	202131003189	03-05-2021
13	Gcrom: A System For Surveillance Mobile Robot Controlusing Vision Based Static Hand Gesture Recognition	202131002191	02-12-2021
14	A LOW TEMPERATURE DECORTICATION CUM GRINDING MACHINE	202131040791	15-10-2021
15	HARVESTING AND USE OF PHOTOVOLTAIC POWER USING WIRELESS POWER TRANSFER SYSTEM	201931038823	02-04-2021
16	PATIENT SPECIFIC NEAR-NET SHAPED UNIAXIALY PRESSED CERAMIC FEMORAL HEAD AND ACETABULAR SOCKET, AND FABRICATION METHOD THEREOF (2nd)	202042025945	09-11-2020

Sr. No.	Title/Name of Patent	IP Registration Number	Date of Filed/Published
17	NANO-FIBROUS POLYELECTROLYTE COMPLEX FOR RAPID CONTROL OF HAEMORRHAGE.	201831026577	24-01-2020
18	FATIGUE AND CREEP TESTING MACHINE FOR NONMETALLIC/COMPOSITE MATERIALS	201831038189	17-04-2020
19	INNOVATIVE IOT BASED TRACKING SYSTEM DESIGN FOR MINES WITH LIMITED CONVENTIONAL COMMUNICATION NETWORK	201931008442	11-09-2020
20	AN INNOVATIVE FAST ORTHOGONAL MATCHING PURSUIT ALGORITHM AND ITS EFFICIENT RECONFIGURABLE ARCHITECTURE.	201931008443	11-09-2020
21	SELF-ASSEMBLED NANO-FIBERS AS HEMOSTATIC AGENT	201931015575	23-10-2020
22	PERSONALIZED POLLUTION MANAGEMENT (PPM) SYSTEM	201931051422	03-01-2020
23	AN INTELLIGENT PESTICIDE SPRAYING DEVICE FOR PRECISION AGRICULTURE.	201931051523	03-01-2020

7.3) 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	View
1	202121048186	MULTI-FUNCTIONAL INDUCTION FURNACE FOR HEATING AND MELTING OF MATERIALS METHOD AND THEREOF	22-10-2021	Published	1905		
2	202131040791	A LOW TEMPERATURE DECORTICATION CUM GRINDING MACHINE	08-09-2021	Published	1905		
3	202131015796	PILOT SCALE MANUFACTURING OF ACME THREADED HOLLOW ENDOSSEOUS CERAMIC DENTAL IMPLANT BY UNIAXIAL PRESSING	02-04-2021	Published	1905		

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	View
4	202131009658	AUTOMATED SAMPLE HOLDERS FOR DYNAMIC MECHANICAL ANALYSIS IN BENDING AND TENSION MODES	08-03-2021	Published	1905		
5	202131003189	DEVELOPMENT OF LIGHTWEIGHT FLY ASH ANGULAR AGGREGATES FOR STRUCTURAL APPLICATIONS	22-01-2021	Published	1905		
6	202141002235	EFFECT OF MECHANICAL PROPERTIES ON JUTE FIBER REINFORCED BY E-GLASS FIBER WHEN TREATED TO CHANGE IN ENVIRONMENT	18-01-2021	Published	1905		
7	202131002191	GCROM: A SYSTEM FOR SURVEILLANCE MOBILE ROBOT CONTROL USING VISION BASED STATIC HAND GESTURE RECOGNITION	18-01-2021	Published	1905		
8	202031055017	METHOD FOR PREPARATION OF IRON DITELLURIDE NANOPARTICLES	17-12-2020	Published	1905		
9	202131003189	DEVELOPMENT OF LIGHTWEIGHT FLY ASH ANGULAR AGGREGATES FOR STRUCTURAL APPLICATIONS	22-01-2021	Granted	1905		

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	View
10	202031055017	METHOD FOR PREPARATION OF IRONDITELLURIDE NANOPARTICLES	17-12-2020	Granted	1905		
11	201931053451	A NOVEL REFRACTORY MATERIAL WITH REDUCED GRAPHENE OXIDE (RGO) AND A PROCESS FOR PREPARING THE SAME	23-12-2019	Granted	1905		
12	201831000725	INCREASED POWER-TO WEIGHT RATIO OF AN ENGINE BY UTILIZING MAXIMUM VOLUME OF THE CYLINDER FOR COMBUSTION.	08-01-2018	Published	2019		
13	201831006807	DEVICE FOR CONTROLLING SWITCHING OF ELECTRICAL LOADS	22-02-2018	Published	2019		
14	201831026577	NANO-FIBROUS POLYELECTROLYTE COMPLEX FOR RAPID CONTROL OF HAEMORRHAGE.	17-07-2018	Published	2020		
15	201831038189	FATIGUE AND CREEP TESTING MACHINE FOR NONMETALLIC/COMPOSITE MATERIALS	09-10-2018	Published	2020		
16	201931004808	AUTO ALIGNED FREE SPACE OPTICAL SYSTEM	07-02-2019	Published	2019		

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	View
17	201931006455	A STABLE CLOUD-ALLIANCE TO PROVIDE UNINTERRUPTABLE SERVICE	19-02-2019	Published	2019		
18	201931008442	INNOVATIVE IOT BASED TRACKING SYSTEM DESIGN FOR MINES WITH LIMITED CONVENTIONAL COMMUNICATION NETWORK	05-03-2019	Published	2020		
19	201931008443	AN INNOVATIVE FAST ORTHOGONAL MATCHING PURSUIT ALGORITHM AND ITS EFFICIENT RECONFIGURABLE ARCHITECTURE.	05-03-2019	Published	2020		
20	201931015575	SELF-ASSEMBLED NANO-FIBERS AS HEMOSTATIC AGENT	18-04-2019	Published	2020		
21	201931023023	AN APPARATUS FOR PEELING AND CUTTING OF TENDER JACKFRUIT	11-06-2019	Published	2019		
22	201931028707	ADAPTIVE HETEROGENEOUS TRAFFIC SIGNALING SYSTEM.	17-07-2019	Published	2019		
23	201931051422	PERSONALIZED POLLUTION MANAGEMENT (PPM) SYSTEM	12-12-2019	Published	2020		
24	201931051523	AN INTELLIGENT PESTICIDE SPRAYING DEVICE FOR PRECISION AGRICULTURE.	12-12-2019	Published	2020		

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	View
25	202031006684	A METHOD FOR CUSTOMIZED SAFE ROUTE NAVIGATION SYSTEM FOR SMART CITY USERS	17-02-2020	Published	2020		
26	202031008991	THERMAL ENCODING USING SHAPE MEMORY ALLOY(TESMA)	03-03-2020	Published	2020		
27	202031015375	AUTO EMERGENCY VEHICLE RESPONSE AND TRACKING SYSTEM	08-04-2020	Published	2020		
28	202031019664	TREATMENT OF CHROMIUM CONTAMINATED LEATHER EFFLUENT USING FILAMENTOUS FUNGAL BIOFILM	09-05-2020	Published	2020		
29	202031028424	MULTI-SENSOR BASED REAL-TIME SYSTEM FOR AUTOMATIC ACCIDENT DETECTION AND INTIMATION	03-07-2020	Published	2020		
30	202031030818	PERSONALIZE INTEGRATED PARKING MANAGEMENT SYSTEM FOR SMART CITIES	20-07-2020	Published	2020		
31	202031030956	A METHOD AND SYSTEM FOR VIDEO SURVEILLANCE BASED AUTOMATIC CRIME ALERT	20-07-2020	Published	2020		
32	202031052152	IOT AWARE HEALTH MONITORING SYSTEM	30-11-2020	Published	2020		

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	View
33	201731030295	Tunable Emission colors from single phase terbium doped yttrium borate phosphor	28-08-2017	Granted	2020		
34	201731016071	Ready -To-Use PVA-PVP based Patch for wound dressing and tissue engineering Applications	08-05-2017	Granted	2020		
35	201731017301	A corrosion Resistant Cementitious material from Industrial Waste	17-05-2017	Granted	2020		
36	201731030296	Self- Adjustable multi color emissions from single phase Europium doped yttrium borate phosphor	28-08-2017	Granted	2019		
37	201631020089	Multipurpose Biodegradable liquid cleaning agent	13-06-2016	Granted	2019		
38	201631001687	AUTOMATED GUPCHUP MACHINE	18-01-2016	Granted	2021	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_20221103111223)
39	201631034219	FOLDABLE WINGED ORNITHOPTER	06-10-2016	Granted	2022	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_20221103111906)
40	961/KOL/2014	GRAVITY FLOW PORTABLE WATER BOTTLE WITH FILTARTION SYSTEM	18-09-2014	Granted	2021	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_20221103111216)
41	201631008308	N-DIMENSIONAL CLAMPING FIXTURE	10-03-2016	Granted	2021	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_20221103111223)

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	View
42	201631009662	AUTOMATED FOUR-WHEELED INTELLIGENT STAIR CLIMBING MOBILE ROBOT	21-03-2016	Granted	2021	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_2022110311251
43	201731037027	DUAL DISPLAY APPARATUS DEVELOPMENT METHODOLOGY FOR GENERATION AND DISPLAY OF E-BOOK CONTENTS.	18-10-2017	Granted	2020	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_2022110311283
44	201831038969	PHOSPHOR EMBEDDED POLYMERIC HYBRID LUMINESCENT FILM AND ITS APPLICATIONS.	15-10-2018	Granted	2022	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_2022110311313
45	201731028957	SYSTEM AND METHODS FOR GENERATING SYNOPSIS OF MULTI-VIEW VIDEOS	16-08-2017	Published	2019	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_2022110311423
46	202231039742	METHOD AND SYSTEM FOR VOLTAGE SENSOR BASED MAXIMUM POWER POINT TRACKING FOR PHOTOVOLTAIC SYSTEM	11-07-2022	Published	2022	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_2022110311445
47	202231027806	RAPID ARSENIC DETECTION TEST KIT FOR AQUEOUS SYSTEMS	14-05-2022	Published	2022	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_2022110311464
48	202231047725	METHOD FOR SYNTHESIS OF HIGHLY FLUORESCENT METAL-DOPED CARBON DOT AND ITS USE THEREOF	22-08-2022	Published	2022	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_2022110311483

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	View
49	202031018789	SUPERHYDROPHOBIC AND SUPEROLEOPHILIC MACROPOROUS SUBSTRATE FOR OIL SPILL CLEANUP AND PROCESS FOR PROTECTING A METAL SURFACE FROM CORROSION	02-05-2020	Published	2020	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_20221103132331)
50	202042025944	PATIENT SPECIFIC NEAR-NET SHAPED UNIAXIALLY PRESSED CERAMIC FEMORAL HEAD AND ACETABULAR SOCKET, AND FABRICATION METHOD THEREOF (3rd)	19-06-2020	Published	2020	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_20221103133331)
51	201831038189	FATIGUE AND CREEP TESTING MACHINE FOR NONMETALLIC/COMPOSITE MATERIALS	09-10-2018	Granted	2022	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_20221103133742)
52	201931015575	SELF-ASSEMBLED NANO-FIBERS AS HEMOSTATIC AGENT	18-04-2019	Granted	2021	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_20221103134031)
53	202042025945	PATIENT SPECIFIC NEAR-NET SHAPED UNIAXIALLY PRESSED CERAMIC FEMORAL HEAD AND ACETABULAR SOCKET, AND FABRICATION METHOD THEREOF (2nd)	19-06-2020	Published	2020	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_20221103134331)
54	201931038823	HARVESTING AND USE OF PHOTOVOLTAIC POWER USING WIRELESS POWER TRANSFER SYSTEM	26-09-2019	Published	2021	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_20221103134531)

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	View
55	202031019664	TREATMENT OF CHROMIUM CONTAMINATED LEATHER EFFLUENT USING FILAMENTOUS FUNGAL BIOFILM	09-05-2020	Granted	2022	Applicant	View (/Uploads/Institute/PatentFiledNew/ARI-U-0357/2021-22/ARI-U-0357_2022110313505

7.4) 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	Date of Transferred Technology
No Data Found						

Declaration

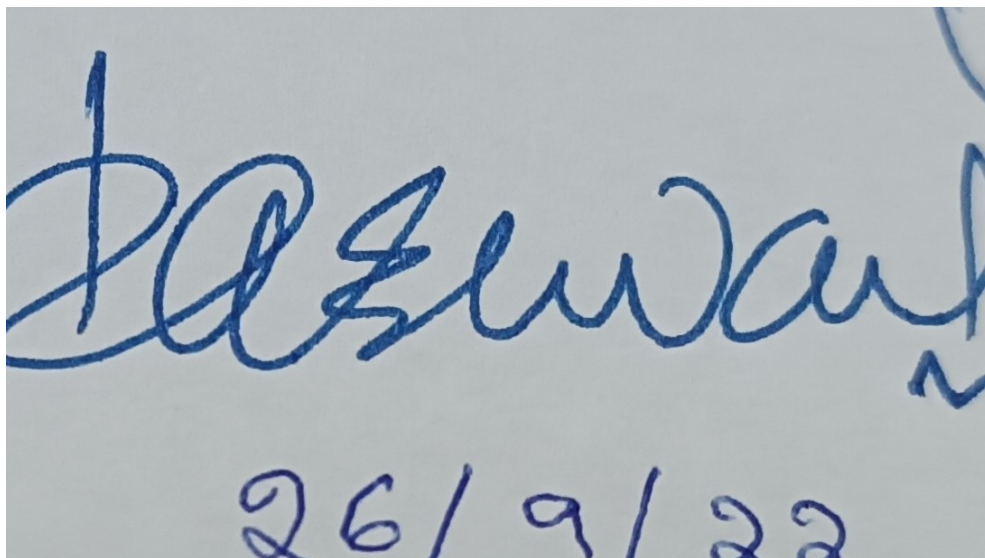
To,
The ARIIA Committee
MHRD's Innovation Cell
New Delhi

Joint Declaration by the Head of the Institute and Nodal Officer

Dear Sir,
Herewith, myself **Prof. K. Umamaheswar Rao** (Head of Institute) and **Prof. Samit Ari** (Nodal Officer) jointly declaring on behalf of our institute is that all the information submitted are true and correct to best of our knowledge.

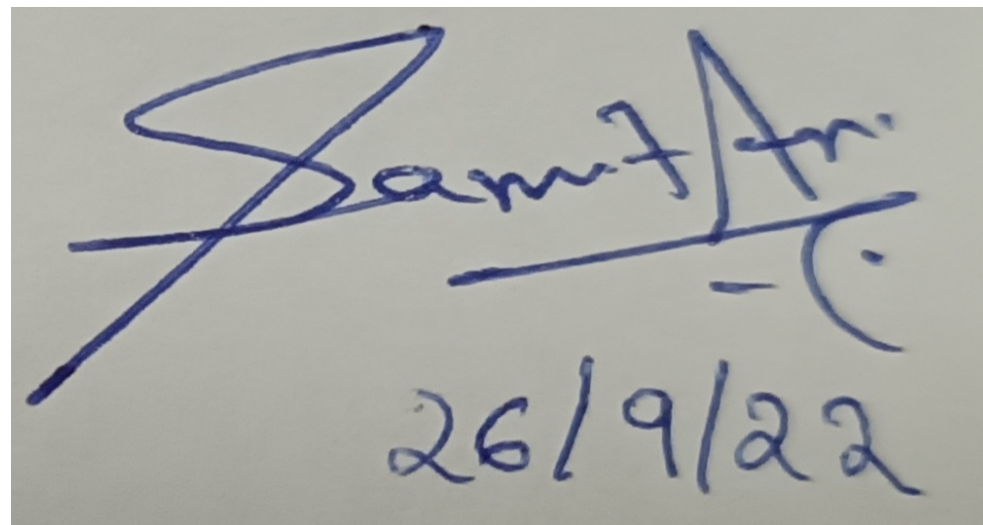
Thank you

The Head of Institute



Prof. K. Umamaheswar Rao,
Head of the Institution,
NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA,
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Nodal officer



Prof. Samit Ari,
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