

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	Yes
Institute has Action Plans for Implementation of the I&E Policy	Yes

Contact:

Faculty Name:	Dr. Amit Agrawal
Designation:	Associate Professor
Email ID:	amitagrawal@biet.ac.in
Mobile No.	7000693516

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)	1,2
IIC 2.0 (2019-20)	3
IIC 3.0 (2020-21)	3.5
IIC 4.0 (2021-22)	0 (On Progress)

Contact:

IIC President of the Institute:	Dr.Papiya Dutta
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Designation:	Professor
Email ID:	papiyadutta@biet.ac.in
Mobile No.	9827587253

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.Rambabau Vatti	Advance	3
2	Mr.Kranthi Kumar Palavalasa	Advance	4
3	Dr Papiya Dutta	Advance	2
4	Dr. SURIYA BEGUM	Basic	0
5	Mr. B. Hemasunder	Advance	3
6	Gyanesh Singh	Basic	0
7	kailash sinha	Advance	0
8	Dr Anil Sahu	Advance	1
9	Dr Amit Agrawal	Advance	2
10	Dr.N.Srihari Rao	Basic	3
11	Dr Kamayani Shrivastav	Basic	2
12	Dr Anup Dey	Basic	0
13	Dr Anirban Kanungoe	Basic	2
14	Dr Madhusudan K S	Advance	0
15	Dr Mahesh Lokhande	Advance	2
16	Mrs Prakruti Kulkarni	Advance	2
17	Hindol Bhattacharjee	Basic	0
18	Dr Angshuman Das	Basic	2

1.4) Participation in KAPILA/SIH Program

HEI Registered in the KAPILA Portal	C-19637	Yes
HEI Participated in the Smart India Hackathon (2022)	C-19637	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	Course End Date
1	Intellectual Property Rights	MC510	2021-22	Core Course	Bachelor	EEE	1	06-09-2021 00:00:00	08-02-2022 00:00:00
2	Research Methodology and IPR	MC	2021-22	Core Course	Master	EEE	1	01-11-2021 00:00:00	12-02-2022 00:00:00
3	Intellectual Property Rights	MC510	2021-22	Core Course	Bachelor	CSE	1	06-09-2021 00:00:00	02-02-2022 00:00:00
4	Intellectual Property Rights	MC509	2021-22	Elective Course	Bachelor	CIVIL	1	02-09-2021 00:00:00	28-02-2022 00:00:00
5	Intellectual Property Rights	R18 MC510	2021-22	Core Course	Bachelor	ECE	1	01-09-2021 00:00:00	31-12-2022 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	Raspberry Pi Innovative interfacing with IoT Communication using MQTT Protocol and Python Language	2021-22	Short-term Certificate Program	Self Sponsored/Supported	Department of Computer Science Engineering and information Technology	27-12-2021 00:00:00
2	Two Day Cloud Computing for Entrepreneurs Workshop	2020-21	Entrepreneurship Development Program (EDP)	Self Sponsored/Supported	Department of Computer Science Engineering	06-10-2020 00:00:00
3	Pedagogy Innovative Methods of Teaching and Learning	2021-22	Short-term Certificate Program	Central Govt. Agency	ECE	07-02-2022 00:00:00
4	Recent Advancements in Innovation in Mechanical Engineering	2020-21	Faculty Development Program (FDP)	Self Sponsored/Supported	Mechanical Engineering	22-06-2020 00:00:00
5	Emerging Trends In Innovation Mechanical Engineering (ETME2020)	2020-21	Entrepreneurship Development Program (EDP)	Self Sponsored/Supported	Mechanical Engineering	16-06-2020 00:00:00
6	Machine Learning in Innovative Applications to Electrical Engineering	2021-22	Short-term Certificate Program	Self Sponsored/Supported	EEE	13-07-2022 00:00:00
7	Cadence EDA Tool for Innovators and Entrepreneurs	2021-22	Entrepreneurship Development Program (EDP)	Industry/Non-Govt.	ECE	22-11-2021 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
8	Emerging Technological Trends -2021 Future Timeline	2020-21	Short-term Certificate Program	Central Govt. Agency	CSE	01-07-2020 00:00:00
9	IT INDUSTRY REAL TIME TOOLS	2020-21	Faculty Development Program (FDP)	Central Govt. Agency	CSE	29-06-2020 00:00:00
10	IBM Cloud Services Technologies and Applications	2020-21	Faculty Development Program (FDP)	Central Govt. Agency	CSE	22-06-2020 00:00:00
11	How to Draft Effective Scientific Publications Patents and Patent Filing	2020-21	Faculty Development Program (FDP)	Central Govt. Agency	EEE	02-07-2020 00:00:00
12	Intellectual Property Rights (IPRs) and IP Management for Start Up	2021-22	Faculty Development Program (FDP)	Self Sponsored/Supported	Civil	24-08-2022 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	Contact no	Email	Govt. Schemes
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Sr. No.	Type of the Unit	Name of Unit	In-charge Name	Contact no	Email	Govt. Schemes
1	EDC	BIET Pre Incubation Center	Dr Mahesh Lokhande	9893199398	mahesh@biet.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),Investment - Angel a
2	Start-Up Cell	BIET Pre Incubation Center	Dr Anil Kumar Sahu	9926811371	anilkumar@biet.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),Investment - Angel a
3	Innovation Cell	BIET Innovation Cell	Dr Anirban Kanungoe	6289447034	anirban@biet.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),Investment - Angel a

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

Sr. No.	Name of Unit	In-charge Name	Contact no	Email	Govt. Schemes
No Data Found					

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	Research Cell	Dr Amit Agrawal	7000693516	amitagrawal@biet.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),Investment - Angel a

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 Engag of Tea Lead i Institi
1	PARTIAL SHADING ASSESSMENT OF PV MODULES	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Dr.Sukanth.T	Facult

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 Institution
2	IoT BASED CONTROL OF HOME AUTOMATION IN REAL TIME APPLIANCES	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Dr.Sukanth.T	Faculty
3	SOLAR-WIND MILL HYBRID SYSTEMS	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Dr.Sukanth.T	Faculty
4	COOLING AND CLEANING TECHNOLOGY OF SOLAR PANEL	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Dr.Sukanth.T	Faculty
5	DESIGN AND IMPLEMENTATION OF SMART SINGLE AXIS SOLAR TRACKING SYSTEM	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Dr.Sukanth.T	Faculty
6	FABRICATION OF HYBRID POWER GENERATION BY SOLAR AND VERTICAL AXIS WIND TURBINE	Academic Requirement/Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	Sivakumar N S	Faculty

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engag of Tea Lead i Institi
7	Thermoelectric Refrigerator	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Sivakumar N S	Faculty
8	FULLY AUTOMATED SOLAR GRASS CUTTER	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Sivakumar N S	Faculty
9	BLIND SENSOR STICK	Academic Requirement/Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	Sivakumar N S	Faculty
10	GARBAGE COLLECTOR ROBOT VIA BLUETOOTH CONTROL	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Sivakumar N S	Faculty
11	FLOATING SOLAR PANEL WITH SUN POSITION TRACKER	Academic Requirement/Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	Sivakumar N S	Faculty

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Curre Engag of Tea Lead i Institi
12	Rainfall Prediction And Analysis Using <input type="checkbox"/> Machine Learning Techniques	Academic Requirement/Study Project	2021-22	TRL 7 : Demonstration system operating in operational environment at pre-commercial scale	Dr N Srihari Rao	Facult
13	TRAFFIC PREDICTION FOR INTELLIGENT TRANSPORTATION SYSTEM	Academic Requirement/Study Project	2021-22	TRL 7 : Demonstration system operating in operational environment at pre-commercial scale	Dr N Srihari Rao	Facult
14	Clinical Disease Prediction Using Machine Learning	Academic Requirement/Study Project	2021-22	TRL 7 : Demonstration system operating in operational environment at pre-commercial scale	Dr N Srihari Rao	Facult
15	Self Closing Flood Barriers	Academic Requirement/Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	Angshuman Das	Facult

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

5) Total No. of Ventures/Startups (Ventures and Recommendations) 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	GST No	FY of Establishment	Startup/Venture Recognized by DPIIT/Startup India
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No Data Found

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	Atal Incubation Centre - Centre for Cellular and Molecular Biology (AIC-CCMB)	Govt. Agency (Central)	2yrs	Active	02-09-2021	
2	eVITAL Heavy Engineering Pvt Limited	Govt. Agency (State)	3Yrs	Active	29-11-2020	
3	HIEE Hyderabad	Knowledge/Mentoring Agency	3Yrs	Active	31-10-2020	
4	M/S INDLAB EQUIPMENTS PVT LTD	Corporate/Industry Association	5Yrs	Active	15-10-2020	
5	iSchool Connect Inc	International Agency	5Yrs	Active	16-10-2020	

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
6	PEEPAL WASTE MANAGERS(PEEPAL)	Corporate/Industry Association	3Yrs	Active	28-10-2022	
7	SK DEEP TECH PVT LTD,	International Agency	5Yrs	Active	23-06-2021	
8	RK Automation	Corporate/Industry Association	3Yrs	Active	16-11-2020	
9	INDIAN BLOCKCHAIN ALLIANCE, IBA / TPCRA WORLD	International Agency	5Yrs	Active	14-05-2021	
10	CIPET-Center for Skilling and Technical Support(CSTS)	Govt. Agency (Central)	3Yrs	Active	10-01-2021	
11	Dattatrya Engineering Corporation Hyderabad	Corporate/Industry Association	1Yrs	Active	26-11-2021	
12	ATAL INCUBATION CENTER ALEAP WE-HUB , Hyderabad	Govt. Agency (Central)	5Yrs	Active	15-11-2021	
13	ATAL INCUBATION CENTER-IIIT, Hyderabad	Govt. Agency (Central)	3Yrs	Active	10-01-2022	
14	ENTUPLE TECHNOLOGIES	Corporate/Industry Association	2Yrs	Active	19-01-2022	View
15	Osmania Technology Business Incubator	Educational Institute	3Yrs	Active	06-08-2022	
16	IFERP	Knowledge/Mentoring Agency	.25Y	Closed	16-11-2020	View
17	IBM	Corporate/Industry Association	1Yrs	Active	18-11-2020	View

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	Comparison on Thermal analysis of aluminum alloy 1199 fins with aluminum alloys 204 by variation temperature distribution	Design	202141011034A	16-08-2021	No

7.2) Patents Filed by HEI

Sr. No.	Title/Name of Patent	IP Registration Number	Date of Filed/Published
1	CAR MOVE SBDL-TECHNOLOGY: VERIFICATION OF SEAT BELT AND DRIVING LICENSE THEN ALLOWED TO DRIVE.	202041026099	20-06-2020
2	SOLAR POWERED PELTIER ICEBOX	202041027420	28-06-2020
3	COVID19 KILLER: SANITIZER MAKING PROCESS USING MACHINE LEARNING TO KILL SARS CORONAVIRUS (COVID19).	202041021833	25-05-2020
4	ICD-DEVICES: INTELLIGENT CLUSTERING DIGITAL DEVICES CONTROL, MONITOR USING INTERNET OF THINGS (IOT).	202041028903	07-07-2020
5	MSC-3D WRITING PEN: MELT-SUBSTRATE RGB-COLOR 3D WRITING PEN.	202011015754	11-04-2020
6	WEB BASED- IRRIGATION SERVICES : ADVANCED CLOUD BASED IMPLEMENTATION OF MASHUP, WEB BASED AGRICULTURE AND IRRIGATION SERVICES	202041001322	11-01-2020
7	IVA-PARKING: INTELLIGENT VEHICLE PARKING SPACE AVAILABILITY, TIME SLOT AND CHARGE NOTIFICATION USING IOT-BASED MANAGEMENT TECHNOLOGY	202011015047	04-04-2020

Sr. No.	Title/Name of Patent	IP Registration Number	Date of Filed/Published
8	IPCPC-VLSI-CIRCUITS: INTELLIGENT PROCESS OF COMPUTING DUAL-CONDUCTOR PARASITICADVANCED CAPACITANCES FOR VLSI CIRCUITS	202041006276	13-02-2020
9	IPCPC-VLSI-CIRCUITS: INTELLIGENT PROCESS OF COMPUTING DUAL-CONDUCTOR PARASITICADVANCED CAPACITANCES FOR VLSI CIRCUITS	202041006276	13-02-2020
10	IWS-DEVICE: INTELLIGENT WOMAN SAFETY DEVICE USING AI PROGRAMMING	202041000359	04-01-2020
11	FDML-FITNESS: FITNESS FUNCTION DERIVED USING MACHINE LEARNING AND DEEP LEARNING	202041007977	25-02-2020
12	ANAEROSOL SOLGEL GENERATING SYSTEM AND A SPECIFICALLY DESIGNED NOZZLE	202041011548	18-03-2020
13	SPEED CHANGING DEVICE: INTELLIGENT SPEED CHANGING DEVICE OF A MIXER ANDNOTIFICATION THROUGH IOT	202041014469	31-03-2020
14	AMPHIBIOUS ROBOT FOR PLASTIC REMOVAL FROM WATER BODIES	202041026203	20-06-2020
15	DESIGN FOR AUTOMATIC SANITIZER SPRAY MACHINE FOR CURRENCY	202041026034	20-06-2020
16	A NOVEL APPROACH FOR MAINTENANCE AND PREDICTION OF HEALTH OF PERSONS USINGMACHINE LEARNING	202041022955	01-06-2020
17	IMI-AC-PERFORMANCE: INTELLIGENT METHOD TO INCREASING AIR CONDITIONERPERFORMANCE AND DECEASING MAINTENANCE.	202011007757	24-02-2020
18	IAI-RECOGNITION HUMAN ACTIVITY: INTELLIGENT RECOGNITION OF HUMAN ACTIVITY USINGAI-BASED PROGRAMMING	202041030751	19-07-2020
19	CREDIT CARD FRAUD PREVENTION: INTELLIGENT PROCESS TO CREDIT CARD FRAUDPREVENTION USING MACHINE LEARNING	202041033789	07-08-2020
20	DISINFECTS CLOTHES, EATING FOOD, VEGETABLE, FRUIT, JUICE, GROCERIES, KITCHEN ITEMSUSING ULTRAVIOLET LIGHT	202041028746	06-07-2020
21	IMRO-RESEARCH: INTELLIGENT RESEARCH METHOD FOR RESEARCHING OBJECT	202011007656	24-02-2020
22	ADML-COVID19 PROTECTED ROOM: AUTOMATIC DISINFECTING ROOM AIR USING MACHINELEARNING SYSTEM	202041025600	18-06-2020

Sr. No.	Title/Name of Patent	IP Registration Number	Date of Filed/Published
23	WEB BASED- IRRIGATION SERVICES : ADVANCED CLOUD BASED IMPLEMENTATION OF MASHUP,WEB BASED AGRICULTURE AND IRRIGATION SERVICES	202041001322	11-01-2020
24	INTELLIGENT CUSTOMER ADVANCED SERVICE SYSTEM USING ARTIFICIAL INTELLIGENCE (AI)PROGRAMMING.	202041027654	30-06-2020
25	CUSTOMER SEGMENTATION : CUSTOMER SEGMENTATION USING MACHINE LEARNING ON IOT.	202041032212	28-07-2020
26	IFQCK-COVID19 KIT: INTELLIGENT FRUIT QUALITY CHECKING AND COVID19 KILLER KIT	202041024912	13-06-2020
27	V-ATM: INTELLIGENT VIRTUAL BANK WITH AUTOMATED TELLER MACHINE	202041003687	28-01-2020
28	SENSOR-BASED INTELLIGENT TEACHING TO DEVELOP BEHAVIORS USING MACHINE LEARNING	202041026641	24-06-2020
29	FITNESS INTELLIGENT PREDICTIVE ANALYTICS USING DEEP LEARNING	202011006914	18-02-2020
30	REMOTE MONITORING AND CONTROL OF ELECTRICAL MACHINES IN MANUFACTURINGINDUSTRIES USING WIRELESS SENSOR NETWORKS	202041022860	01-06-2020
31	IoT-Based Micropayment Protocol for Wearable Devices with Biometric Verification	2020101940	15-09-2020
32	oT-Based Micropayment Protocol for Wearable Devices	2020101940	21-08-2020
33	IMRO-RESEARCH: INTELLIGENT RESEARCH METHOD FOR RESEARCHING OBJECT	202011007656	24-02-2020
34	VEHICLE BUS DATA ACQUISITION AND FAULT ANALYSIS SYSTEM USING CAN AND MONITORINGUSING INTERNET OF THINGS AND MACHINE LEARNING BASED ALGORITHM	202021051576	26-11-2020
35	LSM-Quantum Computing	2020102068	01-09-2020
36	QCIU- Education Environment System: Quantum Computing Integrated Development Education Environment Using IoT-Based System	2020103849	02-12-2020
37	RWO-MOBILE CACHE MEMORY: ADVANCED TECHNIQUES READ AND WRITE OPERATIONS ONMOBILE CACHE MEMORY.	202011006936	18-02-2020
38	ITMD-DEVICE: INTELLIGENT TECHNOLOGY TO MAXIMIZE THE DISPLAY AREA OF A MOBILEDEVICE.	202011009101	03-03-2020
39	Design and Development of Shadow Free Efficient Solar PV Tree	202141006791	18-02-2021

Sr. No.	Title/Name of Patent	IP Registration Number	Date of Filed/Published
40	MACHINE LEARNING BASED PRECISION AGRICULTURAL APPROACH TO ANALYZE THE CROP CULTIVATION PATTERNS	08/04/2022	08-04-2022
41	Covid 19 Outbreak Prediction with Machine Learning and AI Based	202141024841	04-06-2021
42	Online Auction System using Machine Learning	202241007534	12-02-2022
43	Real Time Intelligent for personalized hospitality service for hotel guest using ML	20211055001	27-11-2021
44	An AI based System to predict interrogative disease based on nervous system of the person	20211023894	22-04-2022
45	Deep Learning based techniques to gauge between strengths and weaknesses of the employee in handling emotional situations	202231031340	01-06-2022

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	Vie
1	2020103849	QCIU- Education Environment System: Quantum Computing Integrated Development Education Environment Using IoT-Based System	12-02-2020	Granted	2021		
2	201811034641	"TBS-SYSTEM: THIRD LEVEL BIOMETRIC APP SECURITY SYSTEM	14-09-2018	Published	2020		
3	201941036026	: A-3D-PRINTER: AUTO SCENE INPUT 3-D IMAGE AND PRINT THREE-DIMENSIONALOBJECTS-	09-06-2019	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	Vie
4	202041026099	CAR MOVE SBDL- TECHNOLOGY: VERIFICATION OF SEAT BELT AND DRIVING LICENSETHEN ALLOWED TO DRIVE-	20-06-2020	Published	2020		
5	202041027420	SOLAR POWERED PELTIER ICEBOX	28-06-2020	Published	2020		
6	202041021833	SANITIZER MAKING PROCESS USING MACHINE LEARNING TO KILL SARSCORONAVIRUS (COVID19)-	25-05-2020	Published	2020		
7	202041028903	INTELLIGENT CLUSTERING DIGITAL DEVICES CONTROL, MONITOR USINGINTERNET OF THINGS (IoT)-	07-07-2020	Published	2020		
8	202011015754	3-D WRITING PEN MELT SUBSTARTE RBG COLOR 3D WRITING PEN PATENT	04-11-2020	Published	2020		
9	202041001322	WEB BASED- IRRIGATION SERVICES : ADVANCED CLOUD BASED IMPLEMENTATION OF MASHUP, WEB BASED AGRICULTURE AND IRRIGATION SERVICES	01-11-2020	Published	2020		
10	202041006276	Intelligent Process Of Computing Dual-Conductor Parasitic Advanced Capacitances For VLSI Circuits	13-02-2020	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	Vie
11	202041000359	IWS-DEVICE: INTELLIGENT WOMAN SAFETY DEVICE USING AI PROGRAMMING	01-04-2020	Published	2020		
12	202041007977	FDML-FITNESS: FITNESS FUNCTION DERIVED USING MACHINE LEARNING AND DEEP LEARNING-	25-02-2020	Published	2020		
13	202041011548	ANAEROSOL SOLGEL GENERATING SYSTEM AND A SPECIFICALLY DESIGNED NOZZLE	13-03-2020	Published	2020		
14	202041014469	SPEED CHANGING DEVICE: INTELLIGENT SPEED CHANGING DEVICE OF A MIXER AND NOTIFICATION THROUGH IOT	31-03-2020	Published	2020		
15	202041026034	DESIGN FOR AUTOMATIC SANITIZER SPRAY MACHINE FOR CURRENCY	20-06-2020	Published	2020		
16	202011007757	IMI-AC-PERFORMANCE: INTELLIGENT METHOD TO INCREASING AIR CONDITIONER PERFORMANCE AND DECEASING MAINTENANCE-	24-02-2020	Published	2020		
17	202041030751	IAI-RECOGNITION HUMAN ACTIVITY: INTELLIGENT RECOGNITION OF HUMAN ACTIVITY USING AI-BASED PROGRAMMING-	19-07-2020	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	Vie
18	202041028746	DISINFECTS CLOTHES, EATING FOOD, VEGETABLE, FRUIT, JUICE, GROCERIES, KITCHENITEMS USING ULTRAVIOLET LIGHT-	07-06-2020	Published	2020		
19	202011007656	: IMRO-RESEARCH: INTELLIGENT RESEARCH METHOD FOR RESEARCHING OBJECT	24-02-2020	Published	2020		
20	202041025600	ADML-COVID19 PROTECTED ROOM: AUTOMATIC DISINFECTING ROOM AIR USING MACHINE LEARNING SYSTEM	18-06-2020	Published	2020		
21	202041001322	: WEB BASED-IRRIGATION SERVICES : ADVANCED CLOUD BASED IMPLEMENTATION OF MASHUP, WEB BASED AGRICULTURE AND IRRIGATION SERVICES	01-11-2020	Published	2020		
22	202041027654	: INTELLIGENT CUSTOMER ADVANCED SERVICE SYSTEM USING ARTIFICIAL INTELLIGENCE (AI) PROGRAMMING-	30-06-2020	Published	2020		
23	202041032212	CUSTOMER SEGMENTATION : CUSTOMER SEGMENTATION USING MACHINE LEARNING ON IOT-	28-07-2020	Published	2020		
24	202041024912	IFQCK-COVID19 KIT: INTELLIGENT FRUIT QUALITY CHECKING AND COVID19 KILLER KIT	13-06-2020	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	Vie
25	202041003687	V-ATM: INTELLIGENT VIRTUAL BANK WITH AUTOMATED TELLER MACHINE	28-01-2020	Published	2020		
26	202041026641	SENSOR-BASED INTELLIGENT TEACHING TO DEVELOP BEHAVIORS USING MACHINE LEARNING	24-06-2020	Published	2020		
27	202041022860	REMOTE MONITORING AND CONTROL OF ELECTRICAL MACHINES IN MANUFACTURING INDUSTRIES USING WIRELESS SENSOR NETWORKS-	06-01-2020	Published	2020		
28	2020101940	IoT-Based Micropayment Protocol for Wearable Devices with Biometric Verification	21-08-2020	Granted	2020		
29	202011007656	IMRO-RESEARCH: INTELLIGENT RESEARCH METHOD FOR RESEARCHING OBJECT	24-02-2020	Published	2020		
30	2020102068	LSM- Quantum Computing: LARGE DATABASES STORE INTO A VERY SMALL MEMORY USING QUANTUM COMPUTING AND AI-BASED PROGRAMMING	12-07-1905	Published	2020		
31	202011006936	RWO-Mobile Cache Memory: ADVANCED TECHNIQUES READ AND WRITE OPERATIONS ON M	18-12-2019	Published	2020		

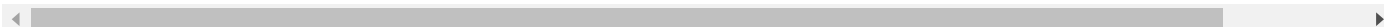
Sr. No.	Patent Registration Application No	Patent Title	Patent Application Date	Status of Patent Applications	Patent Published / Granted Calendar Year	Institute applied the Patent as	Vie
32	202011009101	ITMD-Device: INTELLIGENT TECHNOLOGY TO MAXIMIZE THE DISPLAY AREA OF A MOBILE DEVICE-	03-03-2020	Published	2020		
33	201941050634	INTELLIGENT FISH STOCK PREDICTION USING IMAGE PROCESSING, MACHINE LEARNING AND DEEP LEARNING	12-06-2019	Published	2019		
34	201941040658	: EVM- CONTROL : ELECTRIC VEHICLE CONTROLLING SYSTEM USING BEAGLE BONEBLACK REV C(4G)	10-09-2019	Published	2019		
35	201911045410	BIOMETRIC-ATM: VOICE INPUT AND PIN AUTHENTICATION TO ENHANCE SECURITY ATTHE AUTOMATIC TELLER MACHINES	11-06-2019	Published	2019		
36	201941041979	SOLAR PV POWER AND DISTILLED WATER PRODUCTION ENHANCEMENT TECHNIQUEAND METHOD THEREOF	17-10-2019	Published	2019		
37	201941036942	INTELLIGENT WAY TO PROVIDE IOT BASED PATIENT MONITORING SYSTEM USINGBEAGLEBONE KIT	13-09-2019	Published	2019		
38	201941046804	COMPATIBLE SOLAR AGRICULTURAL & HORTICULTURAL SPRAYER	18-11-2019	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
39	201921026062	SYSTEM FOR REDUCING THE TRAVELLING TIME OF AMBULANCE	29-06-2019	Published	2019		



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	View
1	Design and Development of Shadow Free Efficient Solar PV Tree (SPVT)	IP/Patented Technology	Mr. K. S. Rao	Institute	BIET	



Declaration

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

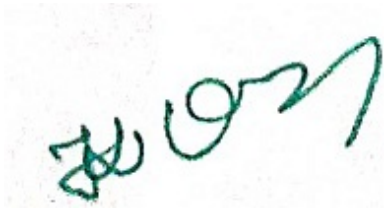
Joint Declaration by the Head of the Institute and Nodal Officer

Dear Sir,

Herewith, myself **Dr. K.Sathish Babu** (Head of Institute) and **Mr. Amit Agrawal** (Nodal Officer) jointly declaring on behalf of our institute is that all the information submitted are true and correct to best of our knowledge.

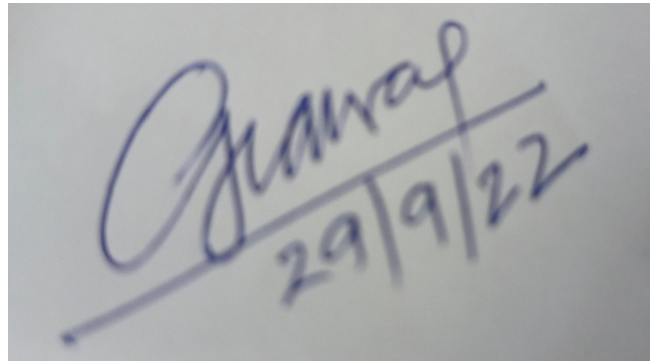
Thank you

The Head of Institute



Dr. K.Sathish Babu,
Head of the Institution,
Bharat Institute of Engineering & Technology,
Hyderabad, Telangana

Nodal officer



Mr. Amit Agrawal,
Nodal Officer,
Bharat Institute of Engineering & Technology,
Hyderabad, Telangana