Velagapudi Ramakrishna Siddhartha Engineering College [ARI-C-18010][C-18010]

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	No

Contact:

Faculty Name:	Dr.Ch.Srinivas
Designation:	Professor & HoD
Email ID:	hodce@vrsiddhartha.ac.in
Mobile No.	9490196362

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)	1,2,3,4
IIC 2.0 (2019-20)	4.5
IIC 3.0 (2020-21)	4
IIC 4.0 (2021-22)	3.5

Contact:

IIC President of the Institute:	Dr. Chava Srinivas
Designation:	HOD & Professor
Email ID:	hodce@vrsiddhartha.ac.in
Mobile No.	9490196362

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.G.Srinivasa Rao	Advance	8
2	Dr.Ch.Rupa	Advance	5
3	R V H Prasad	Advance	1
4	Dr.Venkata Kiran Kumar Ravi	Advance	3
5	Dr. K.Naga Malleswara Rao	Basic	0
6	Nimmagadda Sai Chandrika	Basic	0
7	K.Prasanti	Basic	0
8	P.Ramya	Basic	0
9	Gummadi SrinivasaRao	Advance	0
10	Dr.G.Srinivasa Rao	Advance	0
11	Dr. Ramesh Kumar Panneerselvam	Basic	0
12	Sri M Tejasai	Basic	0
13	Dr.K narendra	Basic	0
14	Mr.K.Anji Reddy	Basic	0
15	Dr. Subhojit Dawn	Advance	0
16	B Srinivas	Basic	0

Sr. No.	Name of the Faculty IA	Level of Training	No of I&E Expert Talks/Sessions Conducted
17	Dr.K. Madhavi	Basic	0
18	Jangam Ebenezer	Basic	0

1.4) Participation in KAPILA/SIH Program

HEI Registered in the KAPILA Portal	C-18010	Yes
HEI Participated in the Smart India Hackathon (2022)	C-18010	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	Cou Sta Dat
1	Design Technology and Innovation	17EI2506/F	2021-22	Elective Course	Bachelor	Electronics and Instrumentation Engineering	2	23-(202 00:(
2	EPICS	17CE5653	2020-21	Core Course	Bachelor	Civil Engineering Department	2	25-(202 00:(
3	Engineering Economics and Finance	17HS1604	2020-21	Core Course	Bachelor	Civil Engineering Department	2	25-(202 00:(
4	Design Thinking and Civil Engineering Workshop	20ES3151A	2021-22	Core Course	Bachelor	Civil Engineering Department	2	08-1 202 00:(

Srno	Title of Course	Course Code	Academic Year	Type of Course	Level of Course	Course Offering Department/ Centre/ Unit Name	Total Credit Score	Cou Sta Dat
5	EPICS	20CE5354	2021-22	Core Course	Bachelor	Civil Engineering Department	2	27-(202 00:(
6	Design Thinking	20EE4607	2021-22	Core Course	Bachelor	Electrical and Electronics Engineering Department	2	20-(202 00:(
7	Engineering Economics and Finance	17HS1705	2021-22	Core Course	Bachelor	Electronics and Instrumentation Engineering	2	13-(202 00:(
8	engineering projects in community service	17EI5653	2021-22	Core Course	Bachelor	Electronics and Instrumentation Engineering	2	14-(202 00:(
9	Entrpreneurship and small business entreprise	19MBA4001	2021-22	Core Course	Master	Master of Business Administration	3	18-(202 00:(
10	Entrepreneurship and Small Business Entreprise	19MBA4001	2020-21	Core Course	,Master	Master of Business Administration	3	07-(202 00:(
11	Engineering Project for Community Services	17EE5653	2020-21	Core Course	Bachelor	Electrical and Electronics Engineering	2	25-(202 00:(
12	Engineering Project for Community Service	17EE5653	2021-22	Core Course	Bachelor	Electrical and Electronics Engineering	2	31-(202 00:(
13	Internship	17EE6754	2020-21	Core Course	Bachelor	Electrical and Electronics Engineering	2	02-: 202 00:(

Srno	Title of Course	Course Code	Academic Year	Type of Course	Level of Course	Course Offering Department/ Centre/ Unit Name	Total Credit Score	Cou Sta Dat
14	Internship	17EE6754	2021-22	Core Course	Bachelor	Electrical and Electronics Engineering	2	13-(202 00:(
15	Engineering Project for Community Services	17EC5653	2020-21	Core Course	Bachelor	Electronics and Communication Engineering	2	25-(202 00:(
16	Engineering Project for Community Services	17EC5653	2021-22	Core Course	Bachelor	Electronics and Communication Engineering	2	07-(202 00:(
17	Engineering Economics and Finance	17HS1705	2020-21	Core Course	Bachelor	Electronics and Communication Engineering	2	02-' 202 00:(
18	Engineering Economics and Finance	17HS1705	2021-22	Core Course	Bachelor	Electronics and Communication Engineering	2	13-(202 00:(
19	Engineering Economics and Finance	17HS1705	2021-22	Core Course	Bachelor	CSE	2	13-(202 00:(
20	Innovation and Entrepreneurship	17CS2802F	2021-22	Elective Course	Bachelor	CSE	3	17-(202 00:(
21	EPICS Engineering Projects for Community Services	17CS5653	2021-22	Core Course	,Bachelor	CSE	2	02-(202 00:(
22	Mini Project	17CS5753	2021-22	Core Course	,Bachelor	CSE	2	13-(202 00:(

Srno	Title of Course	Course Code	Academic Year	Type of Course	Level of Course	Course Offering Department/ Centre/ Unit Name	Total Credit Score	Cou Sta Dat
23	Major Project	17CS5851	2021-22	Core Course	,Bachelor	CSE	4	17-(202 00:(
24	Research Methodology and IPR	19MTMC1026	2021-22	Elective Course	,Master	CSE	1	30- 202 00:(
25	Engineering Economics and Finance	17HS1705	2020-21	Core Course	,Bachelor	CSE	2	02- 202 00:(
26	Innovation and Entrepreneurship	17CS2802F	2020-21	Elective Course	,Bachelor	CSE	3	17-(202 00:(
27	EPICS Engineering Projects for Community Service	17CS5353	2020-21	Core Course	,Bachelor	CSE	2	25-(202 00:(
28	Mini Project UG	17CS5753	2020-21	Core Course	,Bachelor	CSE	2	02- 202 00:(
29	Major Project UG	17CS5851	2020-21	Core Course	,Bachelor	CSE	4	17-(202 00:(
30	Research Methodology and IPR	19MTMC1026	2020-21	Core Course	,Master	CSE	1	15-(202 00:(
31	Engineering Projects for Community Services	17IT5653	2020-21	Core Course	Bachelor	Information Technology	2	09- 202 00:(

Srno	Title of Course	Course Code	Academic Year	Type of Course	Level of Course	Course Offering Department/ Centre/ Unit Name	Total Credit Score	Cou Sta Dat
32	Engineering Projects for Community Services	17IT5653	2021-22	Core Course	,Bachelor	Information Technology	2	01-1 202 00:0
33	Solar Energy Engineering and Technology	17ME2802/B	2021-22	Elective Course	Bachelor	Mechanical Engineering	3	05-(202 00:0
34	Fundamentals of Automotive system	17ME2802/A	2021-22	Elective Course	Bachelor	Mechanical Engineering	3	05-(202 00:0
35	Advanced Manufacturing Processes	17ME2506/C	2021-22	Elective Course	Bachelor	Mechanical Engineering	2	02-(202 00:0
36	Work System Design	17ME2706/B	2021-22	Elective Course	Bachelor	Mechanical Engineering	3	05-(202 00:0
37	Work System Design	17ME2506B	2020-21	Elective Course	Bachelor	Mechanical Engineering	3	07-(202 00:0
38	Solar Energy Engineering and Technology	17ME2802B	2020-21	Elective Course	Bachelor	Mechanical Engineering	3	07-(202 00:0
39	Fundamentals of Automotive Systems	17ME2802/A	2020-21	Elective Course	Bachelor	Mechanical Engineering	3	07-(202 00:0
40	Engineering Project for community services	17ME5653	2020-21	Core Course	Bachelor	Mechanical Engineering	2	01-(202 00:0
41	Engineering Project for community services	17ME5653	2021-22	Core Course	Bachelor	Mechanical Engineering	2	01-(202 00:0

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	One week workshop on Introduction to PLECS tool for Power Electronic Applications	2020-21	Short-term Certificate Program	Self Sponsored/Supported	Electrical and Electronics Engineering Department	02-07-2020 00:00:0
2	Phase - I Trends and Challenges in Medical Image Analysis through Deep Learning Algorithms	2020-21	Faculty Development Program (FDP)	Central Govt. Agency	Electronics and Instrumentation Engineering	26-10-2020 00:00:0
3	Phase - II Trends and Challenges in Medical Image Analysis through Deep Learning Algorithms	2020-21	Faculty Development Program (FDP)	Central Govt. Agency	Electronics and Instrumentation Engineering	07-12-2020 00:00:0
4	Phase - III Trends and Challenges in Medical Image Analysis through Deep Learning Algorithms	2020-21	Faculty Development Program (FDP)	Central Govt. Agency	Electronics and Instrumentation Engineering	23-08-2021 00:00:0

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
5	Phase - IV Trends and Challenges in Medical Image Analysis through Deep Learning Algorithms	2021-22	Faculty Development Program (FDP)	Central Govt. Agency	Electronics and Instrumentation Engineering	13-09-2021 00:00:0
6	NI Certified LabVIEW Associate Developer (CLAD) Certification	2020-21	Short-term Certificate Program	Self Sponsored/Supported	Electronics and Instrumentation Engineering	15-02-2021 00:00:0
7	NI Certified LabVIEW Associate Developer (CLAD) Certification	2021-22	Short-term Certificate Program	Self Sponsored/Supported	Electronics and Instrumentation Engineering	21-03-2022 00:00:0
8	Research Methodology and IPR	2020-21	Short-term Certificate Program	Self Sponsored/Supported	Electrical and Electronics Engineering	15-03-2021 00:00:0
9	International Workshop on Development of Intelligent Systems and Smart Devices for Societal Problems (EPICS)	2020-21	Entrepreneurship Development Program (EDP)	Self Sponsored/Supported	Computer Science and Engineering	10-10-2020 00:00:0

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
10	AICTE Two Week FDP on Professional Morals Work Ethics and Accountability for Teachers in Technical Education	2020-21	Faculty Development Program (FDP)	Central Govt. Agency	Computer Science and Engineering	19-10-2020 00:00:0
11	AICTE Two WEEK FDP on Nurturing Morals Work Ethics and Accountability for Technical Teachers	2020-21	Faculty Development Program (FDP)	Central Govt. Agency	Computer Science and Engineering	07-12-2020 00:00:0
12	One Week Workshop on Source Code Management using Git and Github	2020-21	Management Development Program (MDP)	State Govt. Agency	Computer Science and Engineering	15-02-2021 00:00:0
13	Outcome Based Education Importance of Outcomes Assessment and Evaluation for Accreditation	2020-21	Faculty Development Program (FDP)	Self Sponsored/Supported	Computer Science and Engineering	14-08-2020 00:00:0
14	Research Methodology and IPR	2021-22	Faculty Development Program (FDP)	Central Govt. Agency	Computer Science and Engineering	13-09-2021 00:00:0

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
15	Source Code Management using Git and GitHub	2021-22	Management Development Program (MDP)	Self Sponsored/Supported	Computer Science and Engineering	01-12-2021 00:00:0
16	Development of Smart Solutions using AI Blockchain and IoT for Societal Problems (EPICS)	2021-22	Entrepreneurship Development Program (EDP)	Self Sponsored/Supported	Computer Science and Engineering	02-02-2022 00:00:0
17	Design Thinking	2021-22	Faculty Development Program (FDP)	Central Govt. Agency	Computer Science and Engineering	04-04-2022 00:00:0
18	IEEE International Seminar on Engineering Projects in Community Service	2021-22	Entrepreneurship Development Program (EDP)	Industry/Non-Govt.	Computer Science and Engineering	05-05-2022 00:00:0
19	Research Methodology and IPR	2021-22	Short-term Certificate Program	Self Sponsored/Supported	Information Technology	15-03-2021 00:00:0
20	Research Methodology and IPR	2021-22	Short-term Certificate Program	Self Sponsored/Supported	Information Technology	09-01-2022 00:00:0
21	FEDERATED LEARNING TOWARDS SMART SOLUTIONS FOR SOCIETY	2021-22	Faculty Development Program (FDP)	Self Sponsored/Supported	Information Technology	28-02-2022 00:00:0

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
22	Faculty Innovation Through Advanced Technologies Blockchain Solution to Multidisciplinary Problems of Society	2020-21	Faculty Development Program (FDP)	Central Govt. Agency	Information Technology	21-08-2020 00:00:0
23	High Quality Medical Diagnosis using Data Science for Societal Benefits	2020-21	Faculty Development Program (FDP)	Central Govt. Agency	Information Technology	21-09-2020 00:00:0
24	INDUSTRIAL TRAINING AND CERTIFICATION PROGRAM ON CASTING WELDING AND INSPECTION METHODS	2020-21	Short-term Certificate Program	Self Sponsored/Supported	MECHANICAL ENGINEERING	22-04-2021 00:00:0
25	FDP ON CAD CNC ELECTRICAL ENGINEERING AND AUTOMATION	2020-21	Faculty Development Program (FDP)	Self Sponsored/Supported	MECHANICAL ENGINEERING	20-09-2021 00:00:0
26	Training on Python and C programming skills	2021-22	Short-term Certificate Program	Self Sponsored/Supported	MECHANICAL ENGINEERING	10-11-2021 00:00:0

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
27	Python and C Programming	2021-22	Short-term Certificate Program	Self Sponsored/Supported	MECHANICAL ENGINEERING	22-10-2021 00:00:0
28	Python and C Programming	2020-21	Short-term Certificate Program	Self Sponsored/Supported	MECHANICAL ENGINEERING	28-12-2020 00:00:0
29	Python and C programming	2020-21	Short-term Certificate Program	Self Sponsored/Supported	MECHANICAL ENGINEERING	05-10-2020 00:00:0
30	Python Programming Basics	2020-21	Short-term Certificate Program	Self Sponsored/Supported	MECHANICAL ENGINEERING	16-08-2020 00:00:0

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	Innovation Cell	Innovation Cell	Dr. Gummadi srinivasa Rao	9490958228	vasu1in@vrsiddhartha.ac.in	

Sr. No.	Type of the Unit	Name of Unit	In-charge Name	Contact no	Email	Govt. Schemes
2	Innovation Cell	ECE-Incubation Center	R V H PRASAD	8142234445	rvhprasad@vrsiddhartha.ac.in	Mentoring Support,Seed Grant Support,Pre-Incubation Facility Support (Idea to Prototype and Innovative Business Plan Development)
3	Innovation Cell	Project Lab	R V H PRASAD	8142234445	rvhprasad@vrsiddhartha.ac.in	Mentoring Support,Seed Grant Support,Pre-Incubation Facility Support (Idea to Prototype and Innovative Business Plan Development)
4	Innovation Cell	TIFAC CORE-in Telematics	Sk Khaleel Ahmed	9985883438	khaleel786@vrsiddhartha.ac.in	Mentoring Support
5	Innovation Cell	ECE - R&D Centre	Dr. A. Jhansi Rani	9949894526	jhansirani@vrsiddhartha.ac.in	Mentoring Support

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	V R Siddhartha TBI Foundation	Dr.Chava Srinivas	9490196362	hodce@vrsiddhartha.ac.in	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	Contact no	Email	Govt. Schemes
1	IPR Cell	IPR Cell	Dr.Ch Rupa	9848690640	rupamtech@gmail.com	Mentoring Support,Seed Grant Support

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 Engagem of Team Lead in Institute
1	DESIGN AND FABRICATION OF TRI-WHEEL STAIR CLIMBING HAND TROLLEY	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	NEELAKANTAM HARI CHARAN	Student
2	Fabrication of modified Vapour Compression Refrigeration System for Cold Storages	Academic Requirement/Study Project	2021-22	TRL 7 : Demonstration system operating in operational environment at pre-commercial scale	Kathiroju Nanda Kishore	Student

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagem of Team Lead in Institute
3	PICO-HYDRO ARCHIMEDES SCREW TURBINE FOR RURAL INDIA ELECTRIFICATION	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Upendra Lachipatula	Student
4	PICO-HYDRO ARCHIMEDES SCREW TURBINE FOR RURAL INDIA ELECTRIFICATION	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Upendra Lachipatula	Student
5	PICO-HYDRO ARCHIMEDES SCREW TURBINE FOR RURAL INDIA ELECTRIFICATION	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Upendra Lachipatula	Student
6	PICO-HYDRO ARCHIMEDES SCREW TURBINE FOR RURAL INDIA ELECTRIFICATION	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Upendra Lachipatula	Student

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagem of Team Lead in Institute
7	PICO-HYDRO ARCHIMEDES SCREW TURBINE FOR RURAL INDIA ELECTRIFICATION	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Upendra Lachipatula	Student
8	TREE SHIFTING HYDRAULIC DEVICE	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	AKSHAY.VEMURI	Student
9	AIR PURIFIER WHICH KILLS BACTERIA AND VIRUSES (WORKING MODEL)	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	V G CHERAN SESHAGIRIRAO INNAMURI	Student
10	DESIGN AND FABRICATION OF GROUND NUT SHELLING MACHINE	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	GARNEPUDI VENKATA NARASAMMA	Student

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagem of Team Lead in Institute
11	Modelling and Manufacturing Of Herringbone Gear	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	DOKKU HARI KRISHNA	Student
12	Design of water tank sludge cleaning machine	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	ch.karthik	Student
13	MODELING AND FABRICATION OF ECO-FRIENDLY ROAD CLEANING MACHINE	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	VEMULA SRIKANTH	Student
14	Handy Harvesting Machine	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Nishath Afroz	Student

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagem of Team Lead in Institute
15	MODELING OF COMPACT HELICAL AIR-COOLED DOMESTIC CONDENSER	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	YARRA HARSHA VARDHAN VARMA	Student
16	EGGS INCUBATOR FOR SMALL SCALE POULTRY FARMER	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Rejeti Srinivasa Sarath Kumar	Student
17	automatic seat belt mechanism of an automobile	Academic Requirement/Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	Battula.Rakesh kumar	Student
18	Fabrication of mini conveyer belt using Geneva mechanism	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Appinedi Ravi Sai Kumar	Student

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagem of Team Lead in Institute
19	Design and Fabrication of Beach cleaning Machine	Academic Requirement/Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	Shaik Fathimunnisa	Student
20	Solar seed treatment and plantation unit	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	PAMPANA RAGHU VENKAT	Faculty
21	Architectural Visualization using Virtual Reality	Independent Assignment/Non-academic Study Project	2021-22	TRL 7 : Demonstration system operating in operational environment at pre-commercial scale	Kranthi malla	Student
22	PAW Patrol: A Smart Device For♂Women, Alzheimer's and Protection Against Pedophile	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Karnati Naga Vivek	Student
23	Drowsiness Detection Using Deep Learning Techniques	Academic Requirement/Study Project	2021-22	TRL 5 : Large scale prototype tested in intended environment	Himaswi Nunnagoppula	Student

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagem of Team Lead in Institute
24	Automatic Check Tray for Aqua culture Shrimp	Independent Assignment/Non-academic Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	rvhprasad	Faculty
25	Karshaka Mithra	Academic Requirement/Study Project	2021-22	TRL 5 : Large scale prototype tested in intended environment	Tejaswini Sambrajyam Janjanam	Student
26	Cubesat STEM model	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Dr Praveen Naidu Vummadisetty	Faculty
27	Cubesat STEM model	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Dr Praveen Naidu Vummadisetty	Faculty
28	AI-powered Student Assistance Chatbot.	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Athuluri Bhharathee	Student

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagem of Team Lead in Institute
29	Classification of Retinal Diseases using ResNet Model	Academic Requirement/Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	Majety Sathvika	Student
30	Poultry App	Academic Requirement/Study Project	2021-22	TRL 5 : Large scale prototype tested in intended environment	Ogirala Murali Krishna	Student
31	Visualization of Water Distribution System in Vijayawada City using Real Time Geospatial Data	Academic Requirement/Study Project	2021-22	TRL 7 : Demonstration system operating in operational environment at pre-commercial scale	Afrose Hussain Mohammad	Student
32	Disease Detection in Cotton	Academic Requirement/Study Project	2021-22	TRL 5 : Large scale prototype tested in intended environment	Dakshinya	Student
33	Smart Stove System	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	BADUGU HARI VENKATA SAMBA SIVA RAO	Student

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagem of Team Lead in Institute
34	An Android Application for Grading Fruits using CNN	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Jaya Vineela Pasupuleti	Student
35	IoT BASED SMART MANHOLE ALERT SYSTEM	Academic Requirement/Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	Boyapati Meghana	Student
36	Framework for Automatic Detection of Features from Fundus Images	Academic Requirement/Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	Puppala Praneeth	Student
37	SUGARCANE PRICE PREDICTION USING DECISION TREE REGRESSOR	Academic Research Assignment/Industry Sponsored Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Vemuru Sneha	Student

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagem of Team Lead in Institute
38	INFANT GROWTH MONITOR	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Srikar Ravi	Student
39	SUGARCANE PRICE PREDICTION USING DECISION TREE REGRESSOR	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Vemuru Sneha	Student
40	INFANT GROWTH MONITOR	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Srikar Ravi	Student
41	RBK Assist	Academic Requirement/Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	Mohammed Junaid Ahmed	Student

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagem of Team Lead in Institute
42	Efficient Smart Micro Scale Solar power management system for rechargeable nodes	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Gudapati Satya Dinesh Kumar	Student
43	Smart Medicine Box	Academic Requirement/Study Project	2021-22	TRL 5 : Large scale prototype tested in intended environment	Murugudu Chandu Sree	Student
44	MULTI PURPOSE DRONE FOR AGRICULTURAL APPLICATION	Academic Research Assignment/Industry Sponsored Project	2021-22	TRL 7 : Demonstration system operating in operational environment at pre-commercial scale	Pallapothu Venkata Sujana	Student
45	Blue-Voice CNC Writing Machine	Independent Assignment/Non-academic Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	Rasamsetty Pranay	Student
46	RAILWAY LINE TRACKING SYSTEM FOR REDUCING ANIMAL ACCIDENTS	Academic Requirement/Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	Palaka Kusuma Sai Sri	Student

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagem of Team Lead in Institute
47	High Isolation Compact Four Port MIMO Antenna with Slotted Ground for UWB Applications	Academic Requirement/Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	Praneetha Molakalagiri	Student
48	ANTI COVID SYSTEM	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	KALASANI NAVEEN	Student
49	DSP based Multifunction meter	Independent Assignment/Non-academic Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	N. Vamsi Krishna	Faculty
50	Contiguous Livestock Tracking Device for Protection against Larceny and Enigmatic Animal Behaviour	Academic Requirement/Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	Jaladanki Venkata Ravi Teja	Student

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagem of Team Lead in Institute
51	FUEL DISTANCE ESTIMATOR	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	KANCHERLA S.D.V.N.SAI HARITHA	Student
52	EPILEPTIC SEIZURES DETECTION USING EEG AND ECG SIGNALS	Academic Requirement/Study Project	2020-21	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Rayudu Sairam	Student
53	SENSING ESSENTIAL PARAMETERS FOR PLANT GROWTH USING NODE-RED	Academic Requirement/Study Project	2020-21	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	GURRALA SATYA SAKETH KUMAR	Student
54	EPILEPTIC SIEZURE DETECTION USING MACHINE LEARNING ALGORITHMS BASED ON EEG SIGNALS	Academic Requirement/Study Project	2020-21	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Rayudu Sairam	Student

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagem of Team Lead in Institute
55	TIME WASTAGE IN MALLS AT THE BILLING SECTION	Academic Requirement/Study Project	2020-21	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	GURRALA SATYA SAKETH KUMAR	Student
56	AUTOMATIC MANHOLE OBSERVANT FOR SEWAGE WORKERS SAFETY	Academic Requirement/Study Project	2020-21	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	GARAPATI NIKITHA SRI	Student
57	transformerless inverters	Academic Requirement/Study Project	2020-21	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Dr. Subhojit Dawn	Faculty
58	Smart Attendance System	Academic Requirement/Study Project	2020-21	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	VUTUKURI VENKATA SAI	Student

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	Verlito	Private Limited Firm (Pvt. Ltd.)	U37100AP2022PTC121553 **View Document (https://api.mic.gov.in//uploads/institutes/innov** **Place,Business/Management Innovation5284013.PDF)**
2	Simulated virtual solutions private limited	Private Limited Firm (Pvt. Ltd.)	U72900AP2022PTC120716 **View Document (https://api.mic.gov.in//uploads/institutes/innov**
3	ATHRITEK INNOVATIONS INDIA PRIVATE LIMITED	Private Limited Firm (Pvt. Ltd.)	U72900AP2021PTC119400 **View Document (https://api.mic.gov.in//uploads/institutes/innov**
4	CubeSat STEM	Private Limited Firm (Pvt. Ltd.)	U74999AP2019PTC110220 **View Document (https://api.mic.gov.in//uploads/institutes/innov** **Place3635494.png)**
5	verlito	Private Limited Firm (Pvt. Ltd.)	U37100AP2022PTC121553 **View Document (https://api.mic.gov.in//uploads/institutes/innovationcontest/im** **Innovation1327972.PDF)**
6	verlito	Private Limited Firm (Pvt. Ltd.)	U37100AP2022PTC121553 **View Document (https://api.mic.gov.in//uploads/institutes/innovationcontest/im** **Innovation9872511.PDF)**

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	V.S.Automation	Non Govt. Agency	Thre	Active	04-07-2020	
2	Andhra Pradesh Space Application Centre	Govt. Agency (State)	0003	Active	16-05-2022	
3	PRAKASA SPECTRO CAST Pvt. Ltd. and SYNERGEM (PSCSYN), Enikepadu, Vijayawada-521108	Corporate/Industry Association	Five	Active	22-03-2021	
4	AJNA Networks Private Limited	Corporate/Industry Association	thre	Active	29-01-2020	
5	Dhanush Infotech Private Limited	Corporate/Industry Association	3 Yr	Active	17-10-2020	
6	National Institute of Technology, Warangal Telangana - 506004	Educational Institute	Five	Active	21-01-2022	
7	Maven Silicon	Educational Institute	3Yrs	Active	08-10-2021	
8	National Institute of Technology - Warangal	Educational Institute	5Yrs	Active	21-01-2022	
9	Fopple Technologies	Non Govt. Agency	Thre	Active	08-01-2022	
10	Bharat Sanchar Nigam Limited	Govt. Agency (Central)	5Yrs	Active	20-03-2020	
11	Quantom Learnings	Corporate/Industry Association	03	Active	20-02-2021	

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
12	Saadruso Technology Ventures Private Ltd	Corporate/Industry Association	5 Yr	Active	25-09-2021	
13	Larsen & Toubro Limited, Chennai	Corporate/Industry Association	3 yr	Active	10-08-2020	
14	Indian Institute of Technology Tirupati Navavishkar I hub Foundation	Govt. Agency (Central)	3 yr	Active	19-07-2022	
15	Avantel Ltd	Corporate/Industry Association	3Yrs	Active	10-11-2021	
16	Juniper Networks	Corporate/Industry Association	03	Active	08-12-2021	
17	L4G Solutions Pvt Ltd	Corporate/Industry Association	five	Active	26-04-2021	
18	STARPLAST Industries, TSIIC park, Toopran, Kalakkal, District: Medak, Telangana-502336	Corporate/Industry Association	Five	Active	30-07-2021	
19	Linevsha and Thevan Software Technologies Private Limited	Corporate/Industry Association	5 Yr	Active	13-09-2021	
20	Indian Servers Private Limited	Corporate/Industry Association	03	Active	01-10-2021	
21	Technosys Systems	Corporate/Industry Association	3yrs	Active	25-06-2021	
22	Lakshmi Infrastructure & Development India Pvt. Ltd.	Corporate/Industry Association	five	Active	27-07-2020	
23	EduSkills Foundation	Educational Institute	3Yrs	Active	17-12-2020	

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
24	Panda Analog and Digital systems	Non Govt. Agency	Thre	Active	17-06-2020	
25	Gambrel Engineers LLP, Hyderabad	Corporate/Industry Association	3 yr	Active	27-09-2021	
26	Microgrid PVT LTD	Non Govt. Agency	thre	Active	08-01-2021	
27	Andhra Pradesh State Skill Development Corporation	Govt. Agency (State)	0003	Active	31-12-2021	
28	National highways Authority of India, Project Implementation Unit, Vijayawada	Govt. Agency (Central)	five	Active	28-07-2020	
29	Entuple Technologies Pvt. Ltd.	Corporate/Industry Association	2Yrs	Active	12-07-2021	
30	AVANTEL Limited, Jubilee Enclave, Madhapur, Hyderabad-500081	Corporate/Industry Association	Thre	Active	10-11-2021	
31	Garudalytics Pvt. Ltd., Hyderabad	Corporate/Industry Association	3 Yr	Active	29-01-2022	
32	I & T Labs	Corporate/Industry Association	5 Yr	Active	30-10-2021	
33	Ramesh's Aerospace Products and Services Pvt. Ltd., L K Towers, Roy Nagar, Gannavaram, Vijayawada-521101	Corporate/Industry Association	twoo	Active	08-10-2020	
34	Efftronics Systems Pvt. Ltd	Corporate/Industry Association	01Yr	Inactive	09-07-2021	

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
35	National highways Authority of India, New Delhi	Govt. Agency (Central)	3 Yr	Active	16-04-2022	

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?
1	An AI Powered Facial Recognition Systems Trough Face Mask	Design	364036-001	11-05-2022	No
2	"Cashew Microwave Dryer With Shaker"	Design	340782-001	14-05-2021	No
3	Design and fabrication of overdrive enhancer	Design	202141001219	15-01-2021	No
4	Multipurpose manual control robotic arm	Design	345765-001	01-10-2021	No
5	Multiple Nut Remover	Design	352426-001	31-10-2021	No
6	Integrated airless wheel	Design	348201-001	22-10-2021	No
7	Integrated Airless Wheel	Design	355127-001	19-12-2021	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?
8	Adjustable back rest Assembly for Motor Cycles	Design	334814-001	08-01-2021	No
9	Privacy Preserving Ant Routing Protocol	Copy Right	L-104561/2021	17-06-2021	No
10	Proposed An Optimization Algorithm For Real Time Big Data Stream Processing	Copy Right	L-104562/2021	17-06-2021	No
11	Performance Improvement of Internet of Things Applications for Smart Cities through Real-Time Big Data Computing	Copy Right	L-104606/2021	18-06-2021	No
12	Performance Improvement of Internet of Things Applications for Smart Cities through Real-Time Big Data Computing	Copy Right	L-104606/2021	18-06-2021	No

7.2) Patents Filed by HEI

Sr. No.	Title/Name of Patent	IP Registration Number	Date of Filed/Published
1	Smart Home Appliances For Wi-Fi Device Using IoT For Old Age And Disabled Person	202041044233	10-04-2020
2	CLUSTERING PROTOCOL FOR MOBILE ADHOC NETWORKS	202141040835	09-09-2021
3	Method For Implementing Satin Bowerbird Optimization (Sbo) Algorithm For Maximum Power Point Tracking In Solar Photovoltaic (Pv) System	202141052148	13-11-2021

Sr. No.	Title/Name of Patent	IP Registration Number	Date of Filed/Published
4	Automatic Pathological Voice Quality Assessment Using Iot Based Machine Learning Algorithms	202041029211	09-07-2020
5	AUTOMATIC TOLLBOOTH COLLECTION SYSTEM USING RFID WITH IOT	202021011522	17-03-2020
6	IOT AND BLOCKCHAIN-ENABLED SMART E-VEHICLE CHARGING SYSTEM	202041020699	16-05-2020
7	Deep Learning Based Intelligent Method For EEG Signal Analysis For Neurological Disorders Diagnosis	202141059579	21-12-2021
8	METHOD FOR PROVIDING A MULTI DIRECTIONAL THEFT MONITORING SYSTEM FOR TRACKING VEHICLES AND ALERTING OWNERS IN REAL-TIME	202241004999	02-04-2022
9	Integrated optical MEMS serially coupled double racetrack resonator based accelerometer and high Q-factor photonic crystal microring- resonator based pressure sensor.	202141040452	09-07-2021
10	A Wireless portable handheld scanner device	362265-001	10-04-2022
11	METHOD AND SYSTEM FOR DEVELOPING PORTABLE POWER STATION FOR CHARGING SOLAR BASED ELECTRIC VEHICLES	202241040632	15-07-2022
12	A wireless networking of medical equipment's on mobile application for paperless clinic	2020103799	21-03-2021
13	Smart Electronic Device and System for Object Preserving and Tracking	202041008782	02-03-2020
14	System and method to predict products freshness status and manage its delivery	202041026062	20-06-2020
15	Expert System For Detecting Drowsiness In Drivers	202041050058	17-11-2020
16	A method and device for object detection	202041051463	26-11-2020
17	Red Deer Algorithm For Anomaly Detection In Sensor-Based Cyber-Physical Systems	202141017669	16-04-2021
18	Methodology for the Detection of Bone Fracture in Humans Using Neural Network	2021101325	14-03-2021
19	Mathematical Combinations- Based System and Method for Optimized Travel Itinerary	202141056902	07-12-2021
20	Smart Drinking Water System	202141057461	10-12-2021

Sr. No.	Title/Name of Patent	IP Registration Number	Date of Filed/Published
21	Power system risk curtailment using mobile bi-directional hybrid electric vehicles	202031037600	01-09-2020
22	An AI Abetted Green Energy Generating Systems	202141012214	22-03-2021
23	Generation of Reference Current Using Single Phase Source-Load System Based Control Algorithm for STATCOM	202141030198	05-07-2021
24	A Pseudo Linear Enhanced Phase-Locked Loop-based Control System for Control of Distribution Static Compensator in Distribution Network	202141060806	26-12-2021
25	Electric Field Distribution Factor For Optimization Of Gas Insulated Bus Duct	202241016653	24-03-2022
26	Architecture Of A Power Management Device For Smart Grid Innovation	202241026737	09-05-2022
27	Streetlight Controller	366947-001	29-06-2022
28	Wind solar hybrid electric vehicle	202022100 316	20-01-2022
29	DESIGN AND IMPLEMENTATION OF A SMART SOLAR PANEL WITH AUTO RECTIFICATION AND SELF PHASED MANAGEMENT FEATURES	202221036570	25-06-2022
30	CSFB-MATERIAL: COLD SETTING FLY ASH BUILDING CONSTRUCTION MATERIALS	202041000844	08-01-2020
31	COMPUTER-IMPLEMENTED SYSTEM AND METHOD FOR PREDICTING THE STRENGTH OF BRICKS	202041055947	23-12-2020
32	UTILIZATION OF SNAIL SHELLS FOR ENHANCEMENT OF MECHANICAL PROPERTIES OF CEMENT THROUGH REDUCTION OF IMPACTS ON ENVIRONMENT	202141004905	04-02-2021
33	REINFORCEMENT OF MARINE SANDY SOIL USING TREATED GIANT REED FIBER AND PROCESS THEREOF	202141025922	10-06-2021
34	A METHOD OF PREPARATION OF FOAMED GLASS POWDER GEOPOLYMER BLOCKS	202141026639	15-06-2021
35	OUTLIERS DETECTION WITH STEPWISE MULTIPLE REGRESSION IN HIGH DIMENSIONAL DATA	OUTLIERS DETE	21-06-2022
36	TEMPERATURE SENSOR BASED SCREENING FOR PREVENTION OF SPREAD OF COVID-19	202241002791	18-01-2022

Sr. No.	Title/Name of Patent	IP Registration Number	Date of Filed/Published
37	METHOD, SYSTEM AND DEVICE FOR CROP DETECTION	202141042413	20-09-2022
38	MODEL OF INTELLIGENT SMART MEDICINE BOX FOR ELDERLY PEOPLE	202141054350	24-11-2021
39	Design of Innovative Gateway to Identify Covid Symptoms using IoT	202241005032	30-01-2022
40	MENTAL AND PHYSICAL FITNESS PREDICTION USING MACHINE LEARNING PROGRAMMING.	202141009027	04-03-2021
41	DTV-FRAMEWORK TRAFFIC CLASSIFICATION: DEEP LEARNING FRAME WORK FOR TRAFFIC CLASSIFICATION AND TAKING APPROPRIATE ACTIONS ON VEHICLES USING IOT-BASED TECHNOLOGY (GTSRBDATA SET)	202041051865	28-11-2020
42	METHOD AND APPARATUS FOR CONTINUOUS ELECTRIC POWER GENERATION USING COMPRESSED AIR	202131009459	06-03-2021
43	SYSTEM OF COVID-19 SMART SECURITY BAND WITH ARTIFICIAL INTELLIGENCE AND INTERNET OF THINGS	202141022174	18-05-2021
44	SMART SYSTEM FOR DRIVER'S PERFORMANCE EVALUATION USING MACHINE LEARNING	202141029006	29-06-2021
45	METHOD, SYSTEM AND DEVICE FOR INTRUSION DETECTION	202141022170	18-05-2021
46	SMART POWER CONTROLLING DEVICE USING INTERNET OF THINGS	202041049462	12-11-2020
47	METHOD FOR MINIMIZING THE TIME CONSUMPTION IN SOFTWARE TESTING PROCESS	2020103310	09-11-2020
48	LARGE SCALE IoT PILOT STRUCTURE FOR SMART CITY PLAN AND DEVELOPMENT	2020101211	01-07-2020
49	Quantum Machine Learning based Sensor Consolidation Approach for IIoT	2020102437	25-09-2020
50	DESIGN AND DEVELOPMENT OF SOFT DATA DRIVEN SENSORS FOR USE IN A WASTE-TO-ENERGY (WTE) INDUSTRY PLANT	2020101841	15-08-2020
51	A SYSTEM AND A METHOD FOR PREVENTING THEFT USING BLOCKCHAIN TECHNOLOGY	2020103943	08-12-2020
52	: Technologies Towards 5G Network for Intelligent Health-Care Using IoT notification with Machine Learning Programming	2021102022	19-04-2021

Sr. No.	Title/Name of Patent	IP Registration Number	Date of Filed/Published
53	Deep Learning Based System for the Detection of COVID-19 Infections	2021100007	02-01-2021
54	Artificial Intelligent System for Predicting the Hard Disk Failure	2021100156	12-01-2021
55	AIRBAG IN AUTOMOBILE SAFETY TECHNOLOGY ANDIMPROVEMENTS	202041003413	25-01-2020
56	COMB shaped Antenna with SRR for ISM, WLAN and WiFi applications	202041034103	20-08-2020
57	IOT BASED THINGS SPEAK ENVIRONMENTAL MONITORING USINGWIRELESS SENSOR NETWORK	202041039548	12-09-2020
58	RAINFALL TRACKING DEVICE USING IOT	202131010625	13-03-2021
59	ESTIMATION OF BIOMARKERS FOR ADAPTIVE IMMUNITY IN INFECTIOUS DISEASES USING SMART IOT SENSORS AND DEEP LEARNING	2021102089	26-05-2021
60	ADAPTIVE RECEPTION-TRANSMISSION SCHEDULING FOR A RELIABLE5G NETWORK	202141048117	22-10-2021
61	AN IOT INTEGRATED BLOCKCHAIN TECHNIQUE TO HANDLESECURITY INFORMATION OVER CLOUD	202241005364	01-02-2022
62	AN IOT BASED HEALTH MONITORING SYSTEM TO FACILITATETREATMENT DURING PANDEMIC	202241005440	01-02-2022
63	AN IOT BASED SYSTEM TO MONITOR THE WARDS TRAVELLINGTHROUGH SCHOOL BUSES	202241004828	28-01-2022
64	VIDEO STREAMING OVER COGNITIVE RADIO NETWORK	202141048115	22-10-2021
65	CLOUD COMPUTING BASED TECHNIQUES TO TRACK THE CABS	202241004343	26-01-2022
66	A SMART IOT BASED APPLICATION TO SUPPORT AND MONITORBANK ACCOUNTS OF AN ORGANIZATION	202241006214	05-02-2022
67	AN ARTIFICIAL INTELLIGENCE BASED APPROACH TO ANALYZE THEMULTI-CHANNEL QUERIES OF E-COMMERCE SITES	202241005805	03-02-2022
68	MACHINE LEARNING BASED TECHNIQUE TO ANALYSE THE DATA OFCOVID PATIENTS AND CHANCE FOR GETTING INFECTED WITHOTHER VARIANTS	202241010381	26-02-2022

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
1	202141043674	EFFECTIVE INVESTIGATION OF EVOLUTION OF VORTEX RING IN THE POLYMER SOLUTION	27-09-2021	Published	2021	
2	202141030198	GENERATION OF REFERENCE CURRENT USING SINGLE-PHASE SOURCE –LOAD SYSTEM BASED CONTROL ALGORITHM FOR DSTATCOM	05-07-2021	Published	2021	
3	202141029006	SMART SYSTEM FOR DRIVER'S PERFORMANCE EVALUATION USING MACHINE LEARNING	29-06-2021	Published	2021	
4	202141026639	A COMPOSITION FOR PREPARING FOAMED GLASS POWDERGEOPOLYMER BLOCKS AND METHOD OF PREPARATION THEREOF	15-06-2021	Published	2021	
5	202141025111	A VEHICLE TIRE CONTROL SYSTEM AT CURVED ROADS USING INTELLIGENT INTERFACES AND SUPPORT VECTOR MACHINES	06-06-2021	Published	2021	

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
6	202141022174	SYSTEM OF COVID-19 SMART SECURITY BAND WITH ARTIFICIAL INTELLIGENCE AND INTERNET OF THINGS	18-05-2021	Published	2021	
7	202141017669	RED DEER ALGORITHM FOR ANOMALY DETECTION IN SENSOR-BASED CYBER-PHYSICAL SYSTEMS	16-04-2021	Published	2021	
8	202131009459	METHOD AND APPARATUS FOR CONTINUOUS ELECTRIC POWER GENERATION USING COMPRESSED AIR	06-03-2021	Published	2021	
9	202141009027	MENTAL AND PHYSICAL FITNESS PREDICTION USING MACHINE LEARNING PROGRAMMING-	04-03-2021	Published	2021	
10	202141006943	A SYSTEM AND METHOD FOR AUTO SANITIZATION AND PANDEMIC SPREAD CONTROL IN FUEL STATIONS	19-02-2021	Published	2021	
11	202041010236	METHOD AND SYSTEM FOR IDENTIFYING INTEGRITY OF PHYSICAL CURRENCY	10-03-2020	Published	2020	
12	202041000554	SYSTEM AND METHOD FOR ENHANCING IMAGES TO DETECT AND COUNT OBJECTS	06-01-2020	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
13	202041000844	CSFB-Material: Cold Setting Fly ash Building Construction Materials	01-08-2020	Published	2020	
14	201941023094	Binderless Interlocking Connector for Frudgeral and Compression Structural Members of a precast single bay frame	11-06-2019	Published	2020	
15	201941042554	Method of Energy Saving Routing with Path Exploration Using Bio- Inspired Techniques	20-10-2020	Published	2019	
16	201941054497	Computer Implemented Method of Image Classification with Extreme Learning Machine	30-12-2019	Published	2020	
17	202041003413	Airbag in Automobile Safety Technology and Improvements	25-01-2020	Published	2020	
18	201841043204	Smart Stabilizer for Saving Energy	16-11-2018	Published	2020	
19	202021011522	AUTOMATIC TOLLBOOTH COLLECTION SYSTEM USING RFID WITH IOT	17-03-2020	Published	2020	
20	202041020699	IOT AND BLOCKCHAIN-ENABLED SMART E-VEHICLE CHARGING SYSTEM	16-05-2020	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
21	202041044233	SMART HOME APPLIANCES FOR WI-FI DEVICE USING IOT FOR OLD AGE AND DISABLED PERSON	10-10-2020	Published	2020	
22	202041029211	AUTOMATIC PATHOLOGICAL VOICE QUALITY ASSESSMENT USING IOT BASED MACHINE LEARNING ALGORITHMS	09-07-2020	Published	2020	
23	202041044264	Under water pollution monitoring system to prevent fatalities of aqua ecosystem	12-10-2020	Published	2020	
24	202041026062	System and method to predict producttms freshness status and manage its delivery	20-06-2020	Published	2020	
25	202041008782	Smart Electronic Device and System for Object Preserving and Tracking	02-03-2020	Published	2020	
26	202041050058	Expert System For Detecting Drowsiness In Drivers	17-11-2020	Published	2020	
27	202041051463	A method and device for object detection	26-11-2020	Published	2020	
28	201741005388	YOUPEP - Method and System for Building Network Between Users	15-02-2017	Published	2020	
29	201841029508	Method, System And Device For Protecting The Privacy Of Data	06-08-2018	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
30	202031002649	Method for Cyber Security In Email Communication Among Networked Computing Devices	21-01-2020	Published	2020	
31	202041006390	Method for Scheduling Of Health-Care Facility & Health Care Resources Using IoT Technology	14-02-2020	Published	2020	
32	202041008238	Vehicular Network System of Roadside Unit (RSU) For Monitoring Traffic Information Using Multi-Path Recognition	27-02-2020	Published	2020	
33	202041000517	Mobile Assembly for Reducing Effect of Cellular Phone Radiation	06-01-2020	Published	2020	
34	202041005450	Vehicle Routing Method Using Networked Roadside Units with Internet of Things (IoTs)	07-02-2020	Published	2020	
35	202041033146	Speech Emotion Recognition: Speech Emotion RecognitionUsing Deep Learning-	03-08-2020	Published	2020	
36	202041053308	Digital Educational Certificate Management System Using Ipfs Based Block Chain	08-12-2020	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
37	2020103310	Method for minimizing the time consumption in software testing process	08-11-2020	Published	2020	
38	2020101211	Large Scale Iot Pilot Structure For Smart City Plan And Development	01-07-2020	Granted	2020	
39	2020101145	Smart Quarantine Shelters For Potential Risk Patients Using Iot	25-06-2020	Granted	2020	
40	2020101173	Advance Metering Infrastructure System For Large Scale Iot Networks Data Collection By Streaming	28-06-2020	Granted	2020	
41	2020101841	Design And Development Of Soft Data Driven Sensors For Use In A Waste-To-Energy (Wte) Industry Plant	15-08-2020	Granted	2020	
42	2020102437	Quantum Machine Learning Based sensor consolidation approach for IoT	25-09-2020	Granted	2020	
43	202141012214a	An Ai Abetted Green Energy Generating Systems	22-03-2021	Published	2021	Co-Applicant
44	201941018309	Solar Energy Operated Crop Reaper Machine	07-05-2019	Published	2020	Co-Applicant
45	202131010625	Rainfall tracking device using IoT	13-03-2021	Published	2021	Other(Individual)

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
46	2021102089	Estimation of biomarkers for adaptive immunity in infectious diseases using smart IoT sensors and deep learning	26-05-2021	Granted	2021	Other(Individual)
47	364036-001	An AI Powered Facial Recognition Systems Trough Face Mask	11-05-2022	Published	2022	Other(Individual)
48	202241010381	Machine learning based technique to analyse the data of covid patients and chance for getting infected with other variants	26-02-2022	Published	2022	Other(Individual)
49	202241005440	An iot Based Health Monitoring System to Facilitate Treatment during Pandemic	01-02-2022	Published	2022	Other(Individual)
50	202241005805	An artificial intelligence based approach to analyze the multi-channel queries of e-commerce sites	03-02-2022	Published	2022	Other(Individual)
51	202241006214	A smart iot based application to support and monitorbank accounts of an organization	05-02-2022	Published	2022	Other(Individual)
52	202241004828	An iot based system to monitor the wards travelling through school buses	28-01-2022	Published	2022	Other(Individual)

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
53	202241005364	An iot integrated blockchain technique to handle security information over cloud	01-02-2022	Published	2022	Other(Individual)
54	202141048117 a	Adaptive reception-transmission scheduling for a reliable 5g network	22-10-2021	Published	2021	Other(Individual)
55	202141048115 a	Video streaming over cognitive radio network	10-09-2021	Published	2021	Other(Individual)
56	202241004343	Cloud computing based techniques to track the cabs	26-01-2022	Published	2022	Other(Individual)
57	202041039548	IoT Based Things Speak Environmental Monitoring using Wireless Sensor	12-09-2020	Published	2020	Other(Individual)
58	2021101325	Methodology for the Detection of Bone Fracture in Humans Using Neural Network	14-03-2021	Granted	2021	Other(Individual)
59	202141056902	Mathematical Combinations- Based System and Method for Optimized Travel Itinerary	07-12-2021	Published	2021	Other(Individual)
60	202141057461	Smart Drinking Water System	10-12-2021	Published	2021	Other(Individual)
61	202041034103	COMB shaped Antenna with SRR for ISM, WLAN and WiFi applications	08-08-2020	Published	2020	Other(Individual)

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
62	202141025922	REINFORCEMENT OF MARINE SANDY SOIL USING TREATED GIANT REED FIBER AND PROCESS THEREOF	10-06-2021	Published	2021	Other(Individual)
63	202141052148	Method For Implementing Satin Bowerbird Optimization (Sbo) Algorithm For Maximum Power Point Tracking In Solar Photovoltaic (Pv) System	13-11-2021	Published	2021	Co-Applicant
64	202141001219	Design and fabrication of over drive enhancer	11-01-2021	Published	2021	Co-Applicant
65	202141040835	Clustering Protocol For Mobile Adhoc Networks	09-09-2021	Published	2021	Co-Applicant
66	202141040452	Integrated Optical MEMS Serially Coupled Double Race Track Resonator Based Accelerometer And High Q-Factor Photonic Crystal Microning - Resonator Based Pressure Sensor	09-09-2021	Published	2021	Co-Applicant
67	202141059579	Deep Learning Based Intelligent Method For Eeg Signal Analysis For Neurological Disorders Diagnosis	21-12-2021	Published	2021	Co-Applicant
68	2020103943	A SYSTEM AND A METHOD FOR PREVENTING THEFT USING BLOCKCHAIN TECHNOLOGY	08-12-2020	Granted	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
69	202041027594	COMPUTER IMPLEMENTED METHOD FOR CLASSIFICATION OF MICROCALCIFICATION CLUSTERS IN DIGITAL MAMMOGRAMS	29-06-2020	Published	2020	Co-Applicant
70	2021100007	Deep Learning Based System for the Detection of COVID-19 Infections	02-01-2021	Granted	2021	Co-Applicant
71	2021100156	Artificial Intelligent System for Predicting the Hard Disk Failure	12-01-2021	Granted	2021	Applicant
72	202141022170	METHOD, SYSTEM AND DEVICE FOR INTRUSION DETECTION	18-05-2021	Published	2021	Co-Applicant
73	202141042413	METHOD, SYSTEM AND DEVICE FOR CROP DETECTION	20-09-2021	Published	2021	Co-Applicant
74	202141054350	MODEL OF INTELLIGENT SMART MEDICINE BOX FOR ELDERLY PEOPLE	24-11-2021	Published	2021	Applicant
75	202041049462	SMART POWER CONTROLLING DEVICE USING INTERNET OF THINGS	12-11-2020	Published	2021	Applicant
76	2020103514	IFER Student Behaviour Identification: Intelligent Student Behaviour Identification Using Fer	18-11-2020	Granted	2020	Other(Individual)

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
77	202141033308	MAGNETO HYDRODYNAMIC HEAT TRANSFER USING WATER-BASED NANOFLUIDS WITH SORET AND VISCOUS DISSIPATION EFFECTS	24-07-2021	Published	2021	Co-Applicant

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 Trans Tech
No Data Found						

Declaration

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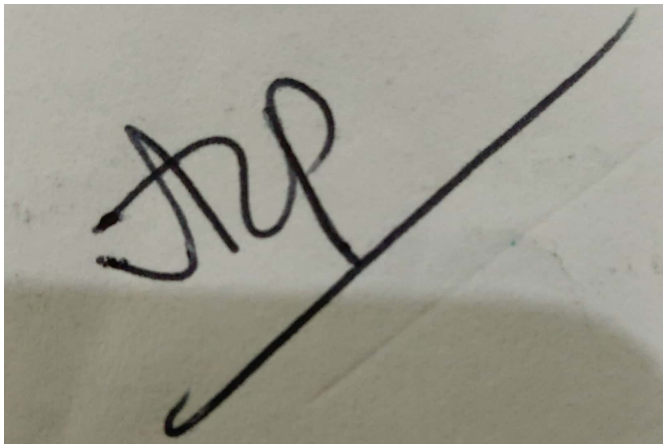The ARIIA Committee
MHRD's Innovation Cell
New Delhi

Joint Declaration by the Head of the Institute and Nodal Officer

Dear Sir,

Herewith, myself **Dr. A V Ratna Prasad** (Head of Institute) and **Dr. B Srinivasa Rao** (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	Nodal officer
Dr. A V Ratna Prasad, Head of the Institution, Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada, Andhra Pradesh	Dr. B Srinivasa Rao, Nodal Officer, Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada, Andhra Pradesh