



# ANNUAL REPORT 2022-23

# Shri Ramdeobaba College of Engineering and Management

Randeo Tekdi, Katol Road, Nagpur 440013 www.rknec.edu

> Dr. D S Adane President IIC, RCOEM

#### **About RCOEM**

Shri Ramdeobaba College of Engineering and Management (RCOEM), Nagpur was established in 1984 by Shri Ramdeobaba Sarvajanik Samiti. An Autonomous Institute affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, accredited by NAAC with "A + " Grade, the Institute has been continuously achieving major milestones. It is one of the most sought-after educational institutes, liked and preferred by students, parents and employers. It offers 11 UG Programs and 10 PG programs and has more than 4500 students. There are more than 450 well-trained employees with expertise in different fields. The college has been continuously featuring in the nationwide rankings and has been ranked 146th in 2022 as per National Institutional Ranking Framework, Ministry of Human Resource Development, Government of India.

### **IIC Mission and Objectives**

- Setting direction for the Institute towards streamlining and establishing a strong start-up ecosystem in the campus and region
- Measuring Innovation & Start-up ecosystem based on Input, Process, Output, and Outcome-based parameters
- Focusing on both quantity and more on quality aspects of the Start-up Eco-System available at the Institute
- Also, to measure the impact created by these innovations and Start-ups in society and the market

#### **IIC Constitution**

As per the guidelines given by the Innovation Cell of Ministry of Education and AICTE, Institute Innovation & Entrepreneurship Council (IIEC) is hereby constituted, consisting of the following members.

SN	Faculty Representation	Name of Faculty	Department
1	President	Dr. D. S. Adane	Research & Innovation Cell
2	Vice President	Dr. Vishal V. Shukla	Mechanical Engineering
3	Convenor	Dr. Rupesh Pais	RCOEM TBI Foundation
4	Innovation Activity	Prof. Prashant B.	Industrial Engineering
	Coordinator	Shiwalkar	
5	Start-up Activity	Mr. Palash Hadke	RCOEM TBI Foundation
	Coordinator		
6	Internship Coordinator	Dr. Parag Jawarkar	Electronics Engineering
7	IPR activity Coordinator	Dr. B. M. Hardas	Electronics Engineering
8	Social Media Coordinator	Dr. Vandana Gandhi	Business Management
9	ARIIA Coordinator	Prof. Bhushan C. Bissa	Mechanical Engineering
10	NIRF Coordinator	Dr. A. S. Chatpalliwar	Industrial Engineering
11	Members	Prof. Sumit S. Geete	Civil Engineering
12		Dr. Rashmi Welekar	Computer Sci. &
			Engineering
13		Prof. P. A. Dwaramwar	Electronics Engineering
14		Prof. N. M. Borkar	Electronics & Comm. Engi.
15		Prof. Jitendra B. Zalke	Bio-Medical Engineering
16		Dr. Uday Mujumdar	Electrical Engineering
17		Prof. P. J. Assudani	Information Technology
18		Prof. Ganesh S. Shetiye	Industrial Engineering

19		Dr. Satyajit S. Uparkar	Master of Compt.
			Applications
20		Dr. Sunita Dhote	Business Management
21		Dr. Y. M. Sonkhaskar	Mechanical Engineering
22		Dr. Pankaj D.Belsare	Physics
23		Prof. Vipul Lande	Electronics and
			Communication
			Engineering
24		Prof. Vishal R. Rathee	Electronics Engineering
25		Dr. Prasad Dahale	Civil Engineering
26		Dr. Sandeep Joshi	Mechanical Engineering
27		Dr.(Ms.) Preeti Kapoor	Electrical Engineering
28		Dr. Suresh Balpande	Electronics Engineering
29		Mr. Sandeep R. Pandey	Electronics Engineering
30			Electronics &
		Dr. Pradeep Ram Selokar	Communication
			Engineering
31		Mr. Abhijeet R. Raipurkar	Computer Science and Engineering
32		Mr. Dilip Kumar Borikar	Computer Science and Engineering
33		Mr. Ashish Chandak	Information Technology
34		Dr. Sachin Upadhye	Computer Application (MCA)
	Expert Representation		,
35	IP Expert/ Patent Expert	Mr. Sunit Sable	BRAINIAC IP Solutions, Pune
36	Startup / Alumni Entrepreneur	Mr. Ketan Paithankar -	Co-founder at Konverge. AI
37	Expert from nearby	Mr. Nikunj Dayma	FerroMonk Steel Structures
20	Industry FI/Bank/Investor/Angel		Pvt. Ltd. Nagpur
38	Investor/VC		
39	Nearby Incubation Centre	RCOEM TBI Foundation	
	Student Representation		
40	Innovation Coordinator	Neeraj Dwivedi	Mechanical Engineering
41		Vinay Dhawad	Electronics &
			Communication
			Engineering
42		Muskan Tekchandani	Industrial Engineering
43		Anusha Vidyabhanu	Electronics &
			Communication
			Engineering
44		Shreerang Vyawahare	Electronics &
			Communication
			Engineering
45		Adnan Husain	Computer Science and
			Engineering
46		Silvi Gupta	Computer Science and
			Engineering
47		Prathmesh Gaidhane	Information Technology
48		Shraddha Wangota	Information Technology

49		Smit Khobragade	Computer Science and Engineering
50		Krishna Chaudhary	Department of Management Technology (MBA) Integrated
51	Startup Coordinator	Kusum Singh	Electronics Engineering
52	•	Yash Kayadinge	Computer Science and
			Engineering-Cyber
53		Lakshya Agrawal	Information Technology
54		Sanskar Motghare	Civil Engineering
55	Internship Coordinator	Gressy Shripad	Industrial Engineering
56	_	Piyush Dwivedi	Electronics &
			Communication
			Engineering
57	IPR Coordinator	Khushi Wankhade	Biomedical Engineering
58	Social Media Coordinator	Khushi Wadnerkar	Department of Management
			Technology (MBA)
			Integrated
59		Samiksha Singh	Industrial Engineering
60		Bhavya Adhiya	Department of Management
			Technology (MBA)
61		Anushree Jain	Biomedical Engineering
62		Purva Marotkar	Department of Management
			Technology (MBA)
63		Kartik Vhonale	Computer Science and
			Engineering-Cyber
64	General Members	Nisarg Pankey	Mechanical Engineering
65		Aalok Choudhari	Computer Science and
			Engineering-Cyber
66		Yash Jain	Information Technology
67		Jay Kadao	Biomedical Engineering
68		Veena Jawrani	Electrical Engineering
69		Khushi Singh	Electronics Engineering
70		Komal Nichat	Computer Science and
			Engineering

### **Innovation Ambassadors**

The following faculty members are appointed as the Innovation Ambassador for the calendar year, and they have completed the basic and advanced training on MIC portal.

S.No.	Name of Faculty Member	Department	IA Training Completed
1	Dr. Y. M. Sonkhaskar	Mechanical Engineering	Basic + Advance
2	Prof. Prashant B. Shiwalkar	Industrial Engineering	Basic + Advance
3	Dr. B. M. Hardas	Electronics Engineering	Basic + Advance
4	Prof. Bhushan C. Bissa	Mechanical Engineering	Basic + Advance
5	Prof. Sumit S. Geete	Civil Engineering	Basic + Advance
6	Dr. Rashmi Welekar	Computer Science	Basic + Advance
7	Prof. Vipul Lande	Electronics & Communication	Basic + Advance
8	Prof. P. J. Assudani	Information Technology	Basic + Advance

9	Prof. Vishal R. Rathee	Electronics Engineering	Basic + Advance
10	Dr. Satyajit S. Uparkar	MCA	Basic + Advance
11	Dr. Prasad Dahale	Civil Engineering	Basic + Advance
12	Dr. Sandeep Joshi	Mechanical Engineering	Basic + Advance
13	Dr.(Ms.) Preeti Kapoor	Electrical Engineering	Basic + Advance
14	Dr. Suresh Balpande	Electronics Engineering	Basic + Advance
15	Prof. Sandeep R. Pandey	Electronics Engineering	Basic + Advance
16	Dr. Pradeep Ram Selokar	Electronics & Communication	Basic + Advance
17	Prof. Abhijeet R. Raipurkar	Computer Science	Basic + Advance
18	Prof. Dilip Kumar Borikar	Computer Science	Basic + Advance
19	Dr. Ashish Chandak	Information Technology	Basic + Advance
20	Dr. Sachin Upadhye	MCA	Basic + Advance

### **Incubation Centres**

- 1. RCOEM Technology Business Incubators Foundation
- 2. RCOEM TATA CIIIT Center for Invention, Innovation, Incubation and Training
- 3. ASPIRE MSME Technology Business Incubation Center

### IPR Cell/TTO Centre Details:

- 1. IPR CELL
- 2. RCOEM Technology Business Incubators (TBI) Foundation

### **Pre-Incubation Centers**

Sr. No.	Type of the Unit	Name of Unit	
1	Innovation Cell	Research Laboratory (Electrical Engineering)	
2	Innovation Cell	Project Laboratory (Electrical Engineering)	
3	Innovation Cell	Electrical Workshop (Electrical Engineering)	
4	Tinkering Lab	Project Lab (Electronics Engineering)	
5	Innovation Cell	Electronic Product/CMOS VLSI Design	
6	Innovation Cell	Research Lab (Electronics Engineering)	
7	Innovation Cell	Center For Microsystems (Electronics Engineering)	
8	Tinkering Lab	Printed Circuit Board Design Lab.	
9	Tinkering Lab	Workshop (Electronics and Communication Engineering)	
10	Innovation Cell	Projects (Electronics and Communication Engineering)	
11	Tinkering Lab	Workshop (Industrial Engineering)	
12	Innovation Cell	Research Lab (Industrial Engineering)	
13	Tinkering Lab	Network And Project Lab (Information Technology)	
14	Tinkering Lab	Project Lab (Mechanical Engineering)	
15	Tinkering Lab	Workshop (Mechanical Engineering)	
16	Innovation Cell	NVIDIA Centre Of Excellence in Artificial Intelligence and	
		Deep Learning (AI & DL)	
17	Innovation Cell	Intellisense Centre For Microsystems	
18	Innovation Cell	Energy Research Centre	

# Student bodies/clubs engaged in promotion of Innovation and Entrepreneurship in the campus

- 1. Technical Club
- 2. Robotics Club
- 3. Sae-India Club
- 4. Embedded Club
- 5. Code Breakers Club
- 6. Drone Club
- 7. Semi Colon Tech Club

### **List of Activities**

The following activities were conducted during the year and relevant documents and reports have been uploaded on the MIC portal.

S.No.	Name of Activity	Quarter	Activity
1	National Youth Day	Quarter II	Celebrations
2	Research Paper Writing	Quarter II	Self-driven Activity
3	National Science Day	Quarter II	Celebrations
4	National Pollution Control Day	Quarter II	Celebrations
5	National Energy Conservation Day(India)	Quarter II	Celebrations
6	Workshop on Design Thinking, Critical thinking and Innovation Design	Quarter II	IIC Calendar Activity
7	Inter/Intra Institutional Innovation Competition/Challenge/Hackathon and Reward Best Innovations - Manage through YUKTI-NIR	Quarter II	IIC Calendar Activity
8	National Technology Day	Quarter III	Celebrations
9	Session/ Workshop on Business Model Canvas (BMC)	Quarter III	IIC Calendar Activity
10	Workshop on Prototype/Process Design and Development	Quarter III	IIC Calendar Activity
11	IDEA-TECHEXPO 23	Quarter IV	Self-driven Activity
12	World Entrepreneurs Day	Quarter IV	Celebrations
13	World Environment Day	Quarter IV	Celebrations
14	Entrepreneurship Development and Sensitization Workshop	Quarter IV	Self-driven Activity
15	TRANSPRENEUR	Quarter IV	Self-driven Activity
16	Independence Day- Celebrating Aazadi Ka Amritkal	Quarter IV	Celebrations
17	Earth Day	Quarter IV	Self-driven Activity
18	INDIAN SWACHHATA LEAGUE	Quarter IV	Self-driven Activity

19	World Ozone Day	Quarter IV	Self-driven Activity
20	Organise Session on "Lean Start-up & Minimum Viable Product/Business" - Boot Camp (or) Mentoring Session	Quarter IV	IIC Calendar Activity
21	Session on Angel Investment/VC Funding Opportunity for Early Stage Entrepreneurs.	Quarter IV	IIC Calendar Activity
22	Workshop on Financial Overview of Non- Financial Entrepreneurs	Quarter IV	Self-driven Activity
23	Digital Marketing for startups	Quarter IV	Self-driven Activity
24	Workshop on Intellectual Property Rights (IPRs) and IP management for start up	Quarter III	IIC Calendar Activity
25	Nuances of Research paper writing	Quarter IV	Self-driven Activity

## Faculty / Student Achievements

S N	Name of the Awardee	Designat ion	Name of the activity	Title of the Award / Recognition	Name of the Awarding bodies	Academic Session
1	Dr.Suresh balpande, Prof.Vishal Rathi, Prof. Dr. Suraj Butoliya,Shubha m Anjankar,	Assistant Professor	Hackathon 2022" contest.	INUP-i2i Nanotech Hackathon 2022" contest.	IIT, Mumbai	2022-23
2	Dr. Sandeep Joshi and Team of his students	Assistant Professor	National Talent Fest 2023 organized by L&T EduTech	photovoltaic module	L&T EduTech	2022-23
3	Saachi Iyer	Student	SERB INAE conclave at IIT Kanpur	Design and Fabrication of Microfluidic platform for the detection of leukamia		2022-23
4	Shrirang Pawnikar	Student	SERB INAE conclave at IIT Kanpur	Design and Fabrication of Microfluidic platform for the detection of leukamia	SERB INAE conclave at IIT Kanpur	2022-23

### **Students Achievements**

No. of student's participation in Hackathon / Other Competition: 762

Students winners: 57

### **Atal School Linkages**

The Institute has accepted the mentoring of the following schools with Atal Tinkering Lab.

S.No.	School Code	School Name	Address	IIC Coordinator Nominated
1	b56a11879	New English High School and Junior College	Congress Nagar, Nagpur-440012	Dr. B. M. Hardas
2	14105683	Pandit Bachharaj Vyas Vidyalaya	Rajabaxa,Post- Ajni, Nagpur	Prof. Vishal R. Rathee
3	197511362	R S Mundle English School and Junior College	Hindustan Colony, Nagpur	Dr. Sunita Dhote

### e- Resources

The following e-resources have been developed by the institute:

S.No.	Title	Tags	Video URL
1	Application of Software's in Civil Engineering	Civil Engineering Softwares	https://youtu.be/rCzXO6 56cTE
2	Introduction to STAAD pro- CONNECT Edition	STAAD.pro	https://youtu.be/GNSibP8 YFtI
3	The similarity of documents: Shingles, Min Hashing and Jaccard Similarity	min hashing, Jaccard similarity	https://www.youtube.com /watch?v=cfluhb84hGw
4	Merge Sort	sorting, algorithm	https://www.youtube.com /watch?v=CZQgr8UvVoY
5	For Loop Programs	for loop, loops	https://www.youtube.com/watch?v=2hsawn1jbjA
6	Introduction to Compiler Design	SLR Parser, Regular expression, compiler, phases	https://www.youtube.com /playlist?list=PLJshpq0JU T2B68UteQvzdEHwzox9EJ bJb

7	Advanced Object Oriented Programming	servlet, java server side programming, servlet lifecycle, request response	https://www.youtube.com /watch?v=7EwG6tHtTUo&l ist=PLAaYDWYyjdSMVIG7 5iZvaJwFBoFT6gQVh
8	Advanced Object-Oriented Programming	Java server pages, demo, actions, directives	https://www.youtube.com /watch?v=Ur- LgxtUF4g&list=PLAaYDWY yjdSMMcpGEL6ClvaPMSP E3XZYT
9	Advanced Object Oriented Programming	Spring, Java, Dependency injection, auto wiring	https://www.youtube.com /watch?v=svck1tr1bqE&lis t=PLAaYDWYyjdSNqhGmw mcm4qW2GmnlqQYhI
10	Advanced Object Oriented Programming	Hibernate, hibernate states, embedded objects, proxy object	https://www.youtube.com /watch?v=osCKbxKVKXs& list=PLAaYDWYyjdSNXmyg 0wbZVBHnxSpxIIkYV
11	Construction of Long Span Bridge	Bridge Construction	https://youtu.be/U9KRUv ZEYPM
12	Ground Improvement using Stone Columns	Ground Improvement, Stone Columns	https://youtu.be/OhNqi8 OvMgw
13	Application of AI in AEC Industry	AI in Civil Engineering	https://youtu.be/XQ29lAs aV74
14	Structural Audit & Repair Methodologies	Structural Audit	https://youtu.be/sVlxpZd a-fY
15	Awareness Programme on Know Yoga, Know Life	Yoga, Awareness, Stress Relief, meditation	https://www.youtube.com /watch?v=FPIZ8NyPl8k&t= 9s
16	Time to Meet Your Best Version		https://youtu.be/h1481IQ qlcA
17	Introduction to Embedded Linux Systems	Embedded, linux	https://www.youtube.com /watch?v=Z4yN6F39xo8
18	Writing a research article: advice to beginners	research, publication	https://www.youtube.com /watch?v=kCmuP8yBBj4
19	Digital Transformation through Cloud	digital, cloud	https://www.youtube.com /watch?v=9_AdZBbHCcM
20	Role of Embedded Systems, IoT towards	embedded, iot	https://youtu.be/gmhoIm F8LzM

21	Personal Branding for Faculty/Students	personality, brand	https://youtu.be/G1Io0gk Qxm4
22	Free Education and Job Opportunities in Germany	education, free, germany	https://youtu.be/5Y3ka5b IrTY
23	Career Day   Higher studies & Job opportunities in the United States of America	education, usa, opportunity	https://www.youtube.com /watch?v=u_GNFbtaLSo&t =8s
24	HOW TO PREPARE FOR CAT AND GET IIM CALLS	CAT, IIM, preparation	https://youtu.be/aZR4Ags MjSE
25	Prospects for Engineers in Defence Force	engineers, defence-forces	https://youtu.be/- g5F8H9WtZw
26	Advanced Concepts in Circuit Simulation and Compact Modelling	circuit, simulation, concept	https://youtu.be/VBCUV HYkLcM
27	Module on Differential Amplifiers	E-Learning	https://www.youtube.com /channel/UCASPICLy_6rW SCqygE04bcA
28	Entrepreneurship opportunities in Electronics & Communication Engineering	Entrepreneur, Core, Electronics and communication	https://drive.google.com/f ile/d/11EhCEjXuIXOmcKr F6P0wKqtDtupuZ4Hw/vie w
29	Concept of Radiation & Antenna	Radiation, Antenna, Fields, Radiation	https://drive.google.com/f ile/d/1Ezvf33S9UE0Q7p2 LYBwGI2gH3CpNKRkv/vie w
30	Learning Computer Communication Networking	Routing, network configuration	Learning Computer Communication and Networking Fundamentals
31	Basics of Wireless Communication	Evolution, Multiplexing, Multiple Access, 4G	http://172.16.176.22:324 00/web/index.html#!/serv er/446e23f2abeb0476ed8d 468cea1e613df9f20d4f/det ails?key=%2Flibrary%2Fm etadata%2F9&context=libr ary%3Acontent.library~0~ 0
32	Synchronization of Spread Spectrum	Evolution, Multiplexing, Multiple Access, 4G	http://172.16.176.22:324 00/web/index.html#!/serv er/446e23f2abeb0476ed8d 468cea1e613df9f20d4f/det ails?key=%2Flibrary%2Fm etadata%2F10&context=lib rary%3Acontent.library~0~ 1

33	Wireless Transmission and Media Access	Evolution, Multiplexing, Multiple Access, 4G	http://172.16.176.22:324 00/web/index.html#!/serv er/446e23f2abeb0476ed8d 468cea1e613df9f20d4f/det ails?key=%2Flibrary%2Fm etadata%2F12&context=lib rary%3Acontent.library~0~ 3
34	Evolution of Wireless Systems	Evolution, 3G, 4G	http://172.16.176.22:324 00/web/index.html#!/serv er/446e23f2abeb0476ed8d 468cea1e613df9f20d4f/det ails?key=%2Flibrary%2Fm etadata%2F17&context=lib rary%3Acontent.library~2~ 0
35	Antenna Systems	antennas, radiation	http://172.16.176.22:324 00/web/index.html#!/serv er/446e23f2abeb0476ed8d 468cea1e613df9f20d4f/det ails?key=%2Flibrary%2Fm etadata%2F18&context=lib rary%3Acontent.library~2~ 1
36	Spread Spectrum Communication	secure communication	http://172.16.176.22:324 00/web/index.html#!/serv er/446e23f2abeb0476ed8d 468cea1e613df9f20d4f/det ails?key=%2Flibrary%2Fm etadata%2F19&context=lib rary%3Acontent.library~2~ 2
37	Big Data and Cloud Computing Technologies	big data, cloud computing	https://drive.google.com/f ile/d/10Z8X7qshGKQbMj MwBQDNKKqGhw8gwFu7 /view
38	HFSS: Complex Antenna Design Techniques for 5G	5G Antenna Design	https://drive.google.com/f ile/d/10ParDKj7g32fJdO7 C6YVt8XTktPEy7hg/view
39	Coding Techniques	Coding Techniques	https://drive.google.com/f ile/d/1f3eETXOd0oBDu3L D7tENF2UFpMbwnz8h/vie w?usp=sharing
40	Coding Techniques	Coding Techniques	https://drive.google.com/file/d/1PQWl_YtVyOJza55ebmCj77fZVslFY5ZL/view?usp=sharing

41	Coding Techniques	Coding	https://drive.google.com/f
		Techniques	ile/d/1EysYFAMOMNIxvb1
		_	T-
			m7Y0Fzvqo0WHQWB/view
			?usp=sharing

## Ideas/Prototypes/Start-ups Initiated

The IIC is constantly encouraging its students and faculty members to participate and upload their innovations on the YUKTI portal. The following Innovations have been submitted to the YUKTI portal.

### **Ideas:**

Sr. No.	Innovat ion ID	Date of Submiss ion	Innovation Title	FY of Developm ent	Developed as part of	Team Lead Details
1	IR2023- 874060	22-08- 2023	Auto seed ball machine TRL Title - TRL 2	2022-23	Academic Requirement/St udy Project	Sejal Gahlod gahlodsj@rknec.e du 8983693258 Student 21MEU1007MEU 1
2	IR2023- 874040	22-08- 2023	Smart stick for blind man TRL Title - TRL 2	2022-23	Academic Requirement/St udy Project	Abhishek Shrivastav Shrivastavaa_4@ rknec.edu 7820875643 Student 21MEU1009MEU 1
3	IR2023- 874039	22-08- 2023	Earthquake Detection System TRL Title - TRL 1	2022-23	Academic Requirement/St udy Project	Priyansh Rajesh Shahu shahupr_1@rkne c.edu 9623013817 Student 21MEU1044MEU 1
4	IR2023- 873928	21-08- 2023	Mechanicaq TRL Title - TRL 1	2022-23	Academic Requirement/St udy Project	Amrut Anant Phate phateaa@rknec.e du 9175594002 Student

						phateaa@rknec.e du
5	IR2023- 873926	21-08- 2023	Assistive Vehicle Indication Using App TRL Title - TRL 1	2022-23	Academic Requirement/St udy Project	Yash Sunil Petkar petkarys@rknec. edu 9156737119 Student petkarys@rknec. edu
6	IR2023- 873925	21-08- 2023	Bluetooth operated solar grass cutter TRL Title - TRL 2	2022-23	Academic Requirement/St udy Project	Anushka Sainis sainisam@rknec. edu 9767386197 Student 21MEU1001MEU 1
7	IR2023- 873923	21-08- 2023	ARDUINO OBSTACLE AVOIDING ROBOT CAR TRL Title - TRL 1	2022-23	Academic Requirement/St udy Project	Ayush Paigwar paigwaraj@rknec .edu 8208783635 Student 21MEU1024MEU 1
8	IR2023- 873920	21-08- 2023	Chat Bot For Mechanical Department TRL Title - TRL 1	2022-23	Academic Requirement/St udy Project	Vishal samaddarvb@rkn ec.edu 7666499210 Student 21MEU1062MEU Y
9	IR2023- 873914	21-08- 2023	LPG GAS LEAKAGE DETECTOR TRL Title - TRL 1	2022-23	Academic Requirement/St udy Project	Madhur Mawale mawalemm@rkn ec.edu 8668721276 Student 21MEU1032MEU 1
10	IR2023- 873897	21-08- 2023	Coconut Cutter TRL Title - TRL 1	2022-23	Academic Requirement/St udy Project	Amogh Deogaonkar deogaonkaraa@r knec.edu 7066234541 Student

						21MEU1014MEU 1
11	IR2023- 873890	21-08- 2023	VERTICAL FOLDING WALKER TRL Title - TRL 1	2022-23	Academic Requirement/St udy Project	Vedant Pulliwar pulliwarva@rkne c.edu 9021250985 Student 21MEU1060MEU 1
12	IR2023- 873864	21-08- 2023	Automatic Plant Watering System TRL Title - TRL 1	2022-23	Academic Requirement/St udy Project	Manav Pande pandemr@rknec. edu 8421462851 Student pandemr@rknec. edu
13	IR2023- 873805	20-08- 2023	Battery Operated Load Trolley for Industries TRL Title - TRL 1	2022-23	Academic Requirement/St udy Project	Mohit Gullani gulanims@rknec. edu 7828387078 Student 21MEU1037MEU 1
14	IR2023- 873769	20-08- 2023	ELECTRICIT Y GENERATIO N THROUGH ROLLER MECHANIS M TRL Title - TRL 2	2022-23	Academic Requirement/St udy Project	ARMAAN GHAI, OJAS CHORDIYA, PRATIK PATIL chordiyaop@rkne c.edu 8551899922 Student 21MEU1019MEU 1, 21MEU1039MEU 1, 21MEU1042MEU 1
15	IR2023- 873076	13-08- 2023	Vehicle Brand Detection System TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Chirag Pradeep Lalwani lalwanicp@rknec. edu 9975649446 Student 2021100091631 2

16	IR2023- 872432	07-08- 2023	APPLICATIO N FOR NEWS ENTHUSIAS TS TRL Title - TRL 1	2022-23	Academic Requirement/St udy Project	Vinayak Soni vhsoni143@gmail .com 7709876880 Student 2021100091621 2
17	IR2023- 872365	07-08- 2023	SPEECH IMAGE DESCRIPTI ON USING YOLO TECHNOLO GY TRL Title - TRL 2	2022-23	Academic Requirement/St udy Project	Nilanshu Hedaoo hedaoonr_1@rkn ec.edu 9373335217 Student 2021100091619 6
18	IR2023- 872235	05-08- 2023	MENTAL HEALTH CHECKER TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Aditya Bopche anshu.bopche.ab @gmail.com 9930493443 Student 2021100091617
19	IR2023- 872121	04-08- 2023	COLD STORAGE REGULATO R TRL Title - TRL 1	2021-22	Academic Requirement/St udy Project	Madhav Dayanand Jha jhamadhav28@g mail.com 9702752201 Student 2021100091619 3
20	IR2023- 872068	03-08- 2023	Modelling and Simulation Of DC-DC Converter for Fuel Cell System TRL Title - TRL 1	2022-23	Academic Requirement/St udy Project	Saurabh Virendra Patel patelsaurabh688 @gmail.com 7249547907 Alumni 19EEU1053EEU 1
21	IR2023- 872059	03-08- 2023	Designing Control Signal of Inverter using MPPT technique and SPWM	2022-23	Academic Requirement/St udy Project	Saurabh Virendra Patel patelsaurabh688 @gmail.com 7249547907 Alumni

			method for a PV System In 1- Phase Grid TRL Title - TRL 2			19EEU1053EEU 1
22	IR2023- 871974	01-08- 2023	Community Centric Application Problem (Movie Recommend ation System) TRL Title - TRL 3	2022-23	Academic Research Assignment/In dustry Sponsored Project	Vishakha Sharma vishakharsharma @gmail.com 9175465711 Student 2021100091630 3
23	IR2023- 871910	31-07- 2023	Revolutioniz ing rural electrificatio n with PV Integrated energy storage system: The DC House Solution TRL Title - TRL 1	2022-23	Academic Research Assignment/In dustry Sponsored Project	Deepti Sinha deeptisinha2015 @gmail.com 8789625927 Alumni 2020100091696 4
24	IR2023- 871901	31-07- 2023	Early Detection of Glaucoma using CNN Architecture TRL Title - TRL 2	2022-23	Academic Research Assignment/In dustry Sponsored Project	Ayush Balpande ayushbalpande0 2@gmail.com 9307728650 Alumni 2020100091711
25	IR2023- 871896	31-07- 2023	Analysis of MIDI Data to determine chords and its visualization TRL Title - TRL 1	2022-23	Academic Research Assignment/In dustry Sponsored Project	Aniket Rawat astroaniket1@gm ail.com 6397377811 Student rawata@rknec.ed u
26	IR2023- 871878	31-07- 2023	Employing biomedical signals as a means of	2022-23	Academic Requirement/St udy Project	Henay Lakhwani henaylakhwani@ gmail.com 7020138368

			biometric identificatio n TRL Title - TRL 3			Alumni lakhwanihp@rkn ec.edu
27	IR2023- 871867	31-07- 2023	A Comprehens ive Microservice Approach to Cross- Platform Inventory Managemen t Systems TRL Title - TRL 3	2022-23	Independent Assignment/No n-academic Study Project	Abhiraj Niranjankumar Sinha sinhaan@rknec.e du 9096415621 Student 11
28	IR2023- 871833	30-07- 2023	IMAGE SEMANTIC SEGMENTA TION: SCENE AWARE SYSTEM FOR AUTONOMO US VEHICLE TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Neha Tomar tomarns@rknec.e du 7420843211 Alumni 2020100091705 6
29	IR2023- 871742	27-07- 2023	Field Programable Gate Array based systems' security TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Tejashree Narayan Agasti tejashreeagasti@ gmail.com 9370140516 Alumni 2020100091708 9
30	IR2023- 871502	21-07- 2023	Network Security and connectivity Tool TRL Title - TRL 2	2022-23	Academic Requirement/St udy Project	Sandesh Sachdev sachdevst@rknec .edu 9921939226 Student 2020100091752 4

31	IR2023- 862618	29-04- 2023	Convertible Recreational Retrofit Vehicle TRL Title - TRL 3	2021-22	Academic Requirement/St udy Project	ASHWIN DUBE ashwin.nit18@g mail.com 7620087268 Student 2022100090018
32	IR2023- 862341	29-04- 2023	COMPACT KICK SCOOTER TRL Title - TRL 3	2021-22	Academic Research Assignment/In dustry Sponsored Project	Vedant Pulliwar pulliwarva@rkne c.edu 9021250985 Student 21MEU1060MEU 1
33	IR2023- 861678	27-04- 2023	Path Planning of Robotic Arc Welding TRL Title - TRL 1	2022-23	Academic Requirement/St udy Project	Aditya Choudhary chaudharyam@r knec.edu 8600220939 Student 2021100091719
34	IR2023- 860857	25-04- 2023	Wire Coiling and Tagging Machine TRL Title - TRL 2	2021-22	Academic Requirement/St udy Project	Aniket Ghagare ghagareap@gmail .com 7888117026 Student 2020100091852 5
35	IR2023- 860630	24-04- 2023	Design & Analysis of Cooling Arrangemen t for Solar Photovoltaic Module TRL Title - TRL 2	2022-23	Academic Requirement/St udy Project	MAYANK KUMAR mayankkuma00 @gmail.com 9284350768 Student 2022100090018 6
36	IR2023- 860627	24-04- 2023	Eco Friendly Spacer TRL Title - TRL 1	2022-23	Independent Assignment/No n-academic Study Project	Adarsh Mishra mishraaa_2@rkn ec.edu 8624918814 Student 2021100091698

37	IR2023- 860417	24-04- 2023	Automated Dual Runner System TRL Title - TRL 2	2022-23	Academic Requirement/St udy Project	Prathamesh Vinod Wandile wandilepv@rknec .edu 9579395367 Student 2021100091702
38	IR2023- 860176	23-04- 2023	Optimized Steering Knuckle Design using Generative Design Approach TRL Title - TRL 3	2022-23	Academic Research Assignment/In dustry Sponsored Project	RITIKA RANJAN ritikaranjan1710 @gmail.com 9404886229 Student 2020100091851 4
39	IR2023- 860142	23-04- 2023	DESIGN OF INTELLIGE NT BRAKING SYSTEM TO REDUCE REACTION TIME TRL Title - TRL 1	2022-23	Academic Requirement/St udy Project	ANISH CHANDRASHEK HAR MOTGHARE anishmotghare@ gmail.com 7420835503 Student 2020100091852 6
40	IR2023- 860094	22-04- 2023	MODIFICAT ION OF DESERT COOLER WITH HEAT EXCHANGE R TRL Title - TRL 1	2022-23	Academic Requirement/St udy Project	SHRIKANT KAITHWAS kaithwasst@rkne c.edu 8080085691 Student 55
41	IR2023- 859981	21-04- 2023	Mechanism for Cervical Physiothera py TRL Title - TRL 2	2022-23	Academic Requirement/St udy Project	Aniket Ghagare ghagareap@gmail .com 7888117026 Student 2020100091852 5
42	IR2023- 859095	18-04- 2023	Identificatio n of species of medicinal	2022-23	Academic Requirement/St udy Project	Akshat Pande pandeas_4@rkne c.edu

			leaves TRL Title - TRL 3			8856089602 Student 2021100091693 4
43	IR2023- 858733	16-04- 2023	saliency detection using wavelet fusion TRL Title - TRL 2	2022-23	Academic Requirement/St udy Project	Grishma Acharya acharyagr@rknec .edu 9307583854 Student 2020100091728
44	IR2023- 858364	15-04- 2023	Growing agro - A agriculture promoting app to help farmers.  TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	ABHISHEK MANGULKAR mangulkaras@rk nec.edu 8766925760 Student 2021100091693
45	IR2023- 858286	15-04- 2023	Dynamic Audience Reaction Prediction ApplicatioN (DARPAN) TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Soham Mundhada soham.mundhad a@gmail.com 8668322731 Student 2020100091753 8
46	IR2023- 858257	15-04- 2023	Industrial fuse puller TRL Title - TRL 2	2022-23	Academic Requirement/St udy Project	Neeraj Dwivedi dwivedin1211@g mail.com 7709803366 Student 2020100091855 0
47	IR2023- 857938	14-04- 2023	Study of Vegetation Cover using Normalized Differential Vegetation Index TRL Title - TRL 2	2022-23	Academic Requirement/St udy Project	Vaishnav Deepak Kothari kotharivd@rknec. edu 9422804900 Student 2020100091767
48	IR2023- 855937	12-04- 2023	Human Choice Predictor	2022-23	Academic Requirement/St udy Project	Khushi Jaiprakash Khatri

			Using Machine Learning For Amazon Go Shopping TRL Title - TRL 2			khatrikhushi181 @gmail.com 9067071396 Student 2021100091715 3
49	IR2023- 855417	11-04- 2023	Carbon Emission Prediction and Visualizatio n. TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Vaidehi Choudhari choudharivd@rk nec.edu 7767877936 Student
50	IR2023- 855415	11-04- 2023	Lost + Found: The Lost Angel Investigator TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Bhavesh Kewalramani kewalramanibb@ rknec.edu 7498930475 Student 2020100091747
51	IR2023- 855341	11-04- 2023	Fish species detection and identificatio n TRL Title - TRL 3	2022-23	Academic Research Assignment/In dustry Sponsored Project	Abhiyant gwalani gwalanian@rknec .edu 8208339346 Student
52	IR2023- 855342	11-04- 2023	Fish species detection and identificatio n TRL Title - TRL 3	2022-23	Academic Research Assignment/In dustry Sponsored Project	Abhiyant gwalani gwalanian@rknec .edu 8208339346 Student
53	IR2023- 854698	11-04- 2023	Chatbot as an Educational Query Engine TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Navya Verma vermanm@rknec. edu 9823049376 Student

54	IR2023- 854355	10-04- 2023	Mobile App to detect Counterfeit Currency TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	pranay jain jainpa_2@rknec.e du 7387066313 Student 2021100091696
55	IR2023- 853914	09-04- 2023	Sign Board Translator App TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Rutuj Surendra Runwal runwalrs@rknec. edu 7972080884 Student 2020100091752 3
56	IR2023- 853895	09-04- 2023	Renal crystal analysis using metaheurist ic algorithm TRL Title - TRL 1	2022-23	Academic Requirement/St udy Project	Swayam Agrawal agrawalsr_13@rk nec.edu 8888194850 Student 2021100091697
57	IR2023- 853762	08-04- 2023	Energy Aware Job Scheduling and Simulation in a Cloud Datacenter TRL Title - TRL 1	2022-23	Academic Requirement/St udy Project	Tejas Satyanarayan Bhutada bhutadats@rknec .edu 6376384122 Student 2020100091850 3
58	IR2023- 853573	07-04- 2023	A Textual Question Answering and Handwritten Answer Evaluation System for Hindi Language TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Rachita Bharambe bharamberm@rk nec.edu 9284372996 Student 2020100091744 2
59	IR2023- 853570	07-04- 2023	Fault Detection in manufacturi	2022-23	Academic Requirement/St udy Project	Shubham Joshi joshisd@rknec.ed u

			ng machines TRL Title - TRL 3			7350391688 Student 2020100091753 6
60	IR2023- 853554	07-04- 2023	Dynamic Microservice based Scalable Approach to List Product Deals TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Radha Sachin Malichkar malichkarrs@rkn ec.edu 7666686798 Student 2020100091744 3
61	IR2023- 853545	07-04- 2023	Resume Screening and Parsing through Natural Language Processing (NLP) TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Pravesh Mukesh Dholwani dholwanipm@rkn ec.edu 8180892741 Student 2021100091713
62	IR2023- 837988	06-04- 2023	Real Time Drowsiness Detection System for Student Tracking using Machine Learning TRL Title TRL 3	2022-23	Academic Requirement/St udy Project	Himani Manoj Dighorikar dighorikarhm@rk nec.edu 9423412051 Student
63	IR2023- 837962	06-04- 2023	A Recommend ation System for Food Tourism TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Ritesh Yadav yadavrj@rknec.e du 7972907036 Student 2021100091697 0
64	IR2023- 837749	06-04- 2023	Job Recommend ation System	2022-23	Academic Requirement/St udy Project	Gourav Rushiya rushiyagr@rknec. edu 7067987136 Student

			TRL Title - TRL 3			2021100091694 4
65	IR2023- 837711	05-04- 2023	Tour Planner TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Pratik Pimpalkar pimpalkarps@rk nec.edu 7028491887 Student 2021100091696
66	IR2023- 837661	05-04- 2023	Hydroponics System TRL Title - TRL 2	2022-23	Academic Requirement/St udy Project	Dhruv Singhaniya singhaniyadp@rk nec.edu 7058899855 Student 2020100091733
67	IR2023- 837564	05-04- 2023	City Ranking System TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Rishi Ojha ojharl@rknec.edu 9764061088 Student 2021100091696 9
68	IR2023- 837553	05-04- 2023	Testing resilience of EC2, RDS, Availability Zone using Chaos Engineering by injecting faults and Auto- correcting them using corrective action TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Rajat Kale kalers_1@rknec.e du 9325652762 Student 2021100091696 7
69	IR2023- 837552	05-04- 2023	Automated exam paper Checking using semantic analysis	2022-23	Academic Requirement/St udy Project	Chinmayee Sonboir sonboirci@rknec. edu 8767461464 Student

			TRL Title - TRL 3			2021100091692
70	IR2023- 837547	05-04- 2023	Human Action Detection and Recognition Using Image Processing TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Abhinashkumar Mehta mehtaas_1@rkne c.edu 8381018512 Student 2021100091692 9
71	IR2023- 837543	05-04- 2023	Machine Translation for Low Resource Indian Languages TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Anuj Prashant Dharme dharmeap_1@rk nec.edu 8450967265 Student 2021100091693 8
72	IR2023- 837542	05-04- 2023	Building a Cloud native and future proof serverless data lake in AWS Cloud platform to perform data catalog managemen t. TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Niraj Deshpande deshpandenb@rk nec.edu 9322847539 Student 2021100091695 7
73	IR2023- 837540	05-04- 2023	AI based Chatbot on Fashion Recommend ation TRL Title - TRL 2	2022-23	Academic Requirement/St udy Project	SEJAL PATIL patilsa_2@rknec. edu 8767404854 Student 2021100091692 6
74	IR2023- 837538	05-04- 2023	Classificatio n of Plants for Diagnosis of Human diseases	2022-23	Academic Requirement/St udy Project	Srushti Kamdi kamdiss_1@rkne c.edu 9322366797 Student

			TRL Title - TRL 3			2021100091692 7
75	IR2023- 837535	05-04- 2023	Automated Identificatio n of Fish Species(Aut oFis) TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Prajwal Bante bantepr@rknec.e du 7020263642 Student 2021100091696 0
76	IR2023- 837534	05-04- 2023	IoT Based Smart Aquarium System for Remote Monitoring and Automated Controlling of Functions TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Rajat Bijekar bijekarrr@rknec. edu 9309776431 Student 2021100091696 6
77	IR2023- 837533	05-04- 2023	Remotely Managed IoT Based Smart Irrigation System TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Nirja Jaurkar jaurkarnd@rknec .edu 8390302417 Student 2021100091692 4
78	IR2023- 837532	05-04- 2023	Cost and Usage governance in AWS Cloud platform TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Megha Shivhare shivharem@rkne c.edu 9373774936 Student 2022100090017 9
79	IR2023- 837531	05-04- 2023	Design and development of Knowledge Graph TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Pratham Gangwal gangwalpk@rkne c.edu 9284104061 Student 2021100091696 4

80	IR2023- 837528	05-04- 2023	Sentiment analysis on twitter dataset TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Sushmita Mahapatra mahapatrasm@r knec.edu 9561979986 Student 2021100091697 5
81	IR2023- 837527	05-04- 2023	Traffic density Analyzer and Managemen t TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Abhishek Badar badarap@rknec.e du 9096684842 Entrepreneur 2021100091693 0
82	IR2023- 837526	05-04- 2023	NFT MarketPlace ApnaBazaar TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Harsh Singh singhhr@rknec.e du 8626028599 Student 2022100090018
83	IR2023- 837043	03-04- 2023	Remotely Accessed Smart CCTV System Using Machine Learning TRL Title - TRL 3	2022-23	Academic Requirement/St udy Project	Apurva Nandkishor Thote thotean@rknec.e du 9834420372 Student 2020100917277
84	IR2023- 837016	03-04- 2023	Sign to Speech Conversion for specially- abled people TRL Title - TRL 4	2022-23	Academic Requirement/St udy Project	Sadnyani Vijay Gomkar gomkarsv@rknec .edu 7028768283 Student 2020100091729 7
85	IR2022- 809417	30-09- 2022	Comparative Analysis of Power Loss using Different Modulation Techniques	2019-20	Academic Research Assignment/In dustry Sponsored Project	Preeti Kapoor kapoorpv@rknec. edu 9823886479 Faculty

			in Modular Multilevel Converter TRL Title - TRL 2			
86	IR2022- 808268	30-09- 2022	Automatic License Number Plate Recognition TRL Title - TRL 2	2021-22	Academic Requirement/St udy Project	Chetana Thaokar thaokarcb@rknec .edu 9730698941 Faculty IT004
87	IR2022- 807628	29-09- 2022	A COMMUNIC ATION SYSTEM FOR VISUALLY IMPAIRED PEOPLE TRL Title - TRL 2	2019-20	Academic Requirement/St udy Project	madhuri madhuri.tayal@g mail.com 8956113651 Faculty it007
88	IR2022- 791997	19-09- 2022	Forecasting Yield and Prices of Rice for Farmers in India TRL Title - TRL 2	2021-22	Academic Requirement/St udy Project	Aarti Karandikar aartikarandikar@ gmail.com 9766008513 Faculty CS004
89	IR2022- 771626	21-08- 2022	Static PEMFC Model Simulation to Demonstrat e the Working with Converter TRL Title - TRL 2	2021-22	Academic Requirement/St udy Project	Shraddha Meshram meshramsk@rkn ec.edu 8830694697 Alumni
90	IR2022- 771555	21-08- 2022	CMOS- NAND Based Gate Driver Card of IGBT for	2020-21	Academic Requirement/St udy Project	gunwanti shende shendegunwanti 21@gmail.com 9168026014 Alumni

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			Fault Diagnosis in VSI TRL Title - TRL 2			
91	IR2022- 771553	21-08- 2022	Modelling and Speed Control of Permanent Magnet Brushless DC Motor using PID TRL Title - TRL 2	2019-20	Academic Requirement/St udy Project	gunwanti shende shendegunwanti 21@gmail.com 9168026014 Alumni
92	IR2022- 771539	21-08- 2022	Reactive Power Compensati on of the Grid Connected PV System TRL Title - TRL 2	2019-20	Academic Research Assignment/In dustry Sponsored Project	Pratik Shyam Manusmare psmanusmare@g mail.com 8857837863 Alumni
93	IR2022- 768882	13-08- 2022	Continuous Automatic Variable Transmissio n (CAVT) for Bicycle TRL Title - TRL 2	2021-22	Academic Requirement/St udy Project	Ram Laxmikant Bhute bhuterl@rknec.e du 9730512981 Student
94	IR2022- 768709	12-08- 2022	Water Wastage Control & Monitoring System for Railway Coaches using IoT. TRL Title - TRL 2	2021-22	Academic Requirement/St udy Project	Anish Garg anishgarg877@g mail.com 9799123337 Student
95	IR2022- 768654	12-08- 2022	Wind Mill Fall Arrester TRL Title - TRL 2	2021-22	Academic Research Assignment/In dustry	Ojas Maywade ojasmaywade16@ gmail.com 8275777866 Alumni

					Sponsored Project	
96	IR2022- 767405	07-08- 2022	Swarm Robots for Constructio n TRL Title - TRL 2	2021-22	Academic Requirement/St udy Project	Uwais Ahmed uwaisahmed41@ gmail.com 7030863543 Alumni
97	IR2022- 767016	05-08- 2022	Design of Bamboo Splitter Using Ergonomic Intervention TRL Title - TRL 2	2021-22	Academic Research Assignment/In dustry Sponsored Project	Upasana Ambhorkar upasana0811@g mail.com 9673050049 Student
98	IR2022- 765691	26-07- 2022	Portable Fingerprint Sensor based "Classroom Attendance Logger" for Teachers/A dministrator s to ease the process of marking attendance of the Students TRL Title- TRL 2	2021-22	Independent Assignment/No n-academic Study Project	Sumit Dandekar sumit809.sd@gm ail.com 9970000104 Alumni
99	IR2022- 765352	23-07- 2022	StudieBudd y TRL Title - TRL 2	2021-22	Independent Assignment/No n-academic Study Project	Vinay Arun Dhawad vinaydhawad17@ gmail.com 9172194317 Student
100	IR2022- 764993	30-11 0001	CineVibes TRL Title - TRL 1	2019-20	ndependent Assignment/Non- academic Study Project	Mandar Mohite mandarymohite@g mail.com 9518731969 Alumni

101	IR2022- 769279	30-11 0001	Wireless Boardless Drawing Tablet TRL Title - TRL 1	2021-22	Independent Assignment/Non- academic Study Project	Rohit Patil patilrp@rknec.edu 9156777887 Student
102	IR2022- 767918	30-11 0001	Challenges in maturity of OEE Software in MSMEs of Central India TRL Title - TRL 3	2021-22	Academic Requirement/Stu dy Project	KARTIK kartikfadnavis100 @gmail.com 9462424090 Student
103	IR2022- 767030	30-11 0001	Approximati on analysis of metaheurist ic approach CRAFT and mCRAFT in plant layout optimization TRL Title - TRL 3	2021-22	Academic Requirement/Stu dy Project	Mitali Jagdish Agrawal mitaliagrawal9168 @gmail.com 7264048049 Alumni
104	IR2022- 767370	30-11 0001	Productivity improvemen t of supermarke t by reducing customer waiting time TRL Title - TRL 1	2021-22	Academic Requirement/Stu dy Project	Mitali Jagdish Agrawal mitaliagrawal9168 @gmail.com 7264048049 Alumni
105	IR2022- 767371	30-11 0001	To ergonomical ly design examination answer book for enhancing the efficiency of evaluation process	2021-22	Academic Requirement/Stu dy Project	Mitali Jagdish Agrawal mitaliagrawal9168 @gmail.com 7264048049 Alumni

			MDI #111			
			TRL Title - TRL 1			
106	IR2022- 809018	30-11 0001	A SYSTEM FOR AUTOMATI ON OF DEVICES UTILIZING BRAIN COMPUTER INTERFACE TRL Title - TRL 3	2019-20	Independent Assignment/Non- academic Study Project	Rakesh K Kadu kadurk@rknec.edu 9881741801 Faculty ITT006
107	IR2022- 767090	30-11 0001	Smart Vacubin with Contactless Waste Collection TRL Title - TRL 3	2021-22	Academic Requirement/Stu dy Project	Ananya Timande timandeaa_1@rkne c.edu 9960752350 Alumni
108	IR2022- 767363	30-11 0001	Covid-19 norms checker for face mask detection and social distancing violation detection TRL Title - TRL 3	2021-22	Academic Research Assignment/Indu stry Sponsored Project	Shivani Agrawal agrawalsa_1@rknec .edu 9096866453 Alumni
109	IR2022- 767493	30-11 0001	Digitized IV Infusion Bottle Monitoring and Alerting System TRL Title - TRL 3	2021-22	Academic Requirement/Stu dy Project	Vedanti Ravish Deshmukh vedantideshmukh3 0@gmail.com 7397856088 Alumni
110	IR2022- 806893	30-11 0001	Prediction of Sugar and Carbohydrat es in Sapota using Hyperspectr	2021-22		Nitesh Dani daninp@rknec.edu 8080009832 Student

			al Image Segmentatio n TRL Title - TRL 1			
111	IR2022- 767527	30-11	Power Generator with Health Monitoring IOT Framework TRL Title - TRL 3	2021-22	Academic Requirement/Stu dy Project	Mandar Mukund Pimparkar mandarmpimparka r@gmail.com 9112394508 Alumni
112	IR2022- 768035	30-11 0001	Developmen t of Triboelectric Blue Energy Harvester TRL Title - TRL 3	2019-20	Academic Requirement/Stu dy Project	Pranjali chakole pranjalichakole@g mail.com 8149610400 Alumni
113	IR2022- 767893	30-11 0001	Contactless Voting Machine for Covid Patients TRL Title - TRL 1	2021-22	Academic Requirement/Stu dy Project	Atharv Parker atharv.parker@gma il.com 8793587185 Student
114	IR2022- 767920	30-11 0001	Early Disease Detection using Android Application based on Nail's Image TRL Title - TRL 3	2020-21	Academic Research Assignment/Indu stry Sponsored Project	Pranav Sanjay Wazarkar wazarkar3108@gm ail.com 9370490116 Alumni
115	IR2022- 767797	30-11 0001	Influencer Marketing Counsel Module Developmen t TRL Title - TRL 1	2020-21	Academic Research Assignment/Indu stry Sponsored Project	Sudarshan Sunil Ahir ahirsudarshan794 @gmail.com 9422126766 Student

116	IR2022- 767977	30-11 0001	Multi tool Universal CNC machine TRL Title - TRL 1	2021-22	Independent Assignment/Non- academic Study Project	Nagesh Udasi nageshudasi123@g mail.com 7774009869 Student
117	IR2022- 768186	30-11 0001	Establishme nt of modified Minimum Quantity Lubrication (MQL) system for machinabilit y improvemen t TRL Title - TRL 3	2021-22	Academic Research Assignment/Indu stry Sponsored Project	Yogesh V Deshpande deshpandeyv@rkne c.edu 9096192751 Faculty
118	IR2022- 768193	30-11 0001	IoT Based Conveyor Belt System For Remote Monitoring TRL Title - TRL 3	2021-22	Academic Research Assignment/Indu stry Sponsored Project	RAKSHAL AGRAWAL rakshalagrawal@g mail.com 9960876158 Faculty
119	IR2022- 768258	30-11	Fabrication Of Extended Voltage Symmetric Supercapaci tor Device And Method For Fabricating Same TRL Title - TRL 3	2019-20		Mrunali D Wagh mrunaliwagh66@g mail.com 7038046596 Alumni
120	IR2022- 768605	30-11 0001	Developmen t of Bamboo- Epoxy Matrix TRL Title - TRL 3	2021-22	Academic Research Assignment/Indu stry Sponsored Project	Bhavesh Verma vermabp@rknec.ed u 9021491829 Alumni

121	IR2022- 768922	30-11 0001	Plant layout optimization using metaheuristic approach CRAFT and mCRAFT TRL Title - TRL 3	2021-22	Academic Research Assignment/Indu stry Sponsored Project	Ayush Agrawal ayush123ngp@gma il.com 8793537156 Alumni
122	IR2022- 770029	30-11	Slope Stability Analysis by GeoSlope TRL Title - TRL 1	2019-20	Academic Requirement/Stu dy Project	Prasad Prakashrao Dahale dahalepp@rknec.ed u 9975497487 Faculty
123	IR2022- 770151	30-11 0001	Effect of suction on shear strength of unsaturated soil. TRL Title - TRL 1	2019-20	Academic Requirement/Stu dy Project	Aashish A Mehta mehtaaa@rknec.ed u 9623212557 Faculty
124	IR2022- 771324	30-11	Interface Design and Performance Analysis of Proton Exchange Membrane Fuel Cell using Python TRL Title - TRL 3	2021-22	Academic Research Assignment/Indu stry Sponsored Project	Siddhi Chauhan chauhansa@rknec. edu 8788655758 Student
125	IR2022- 771579	30-11 0001	E-learning Platform application TRL Title - TRL 3	2021-22	Academic Requirement/Stu dy Project	Navya Verma vermanm@rknec.ed u 9823049376 Student
126	IR2022- 771545	30-11 0001	Predictive Text Generation using Deep Learning	2021-22	Academic Requirement/Stu dy Project	Himani Manoj Dighorikar dighorikarhm@rkn ec.edu 9423412051

			Approaches TRL Title - TRL 3			Student
127	IR2022- 771538	30-11 0001	An Approach to Paperless Administrati on of Offices in India using Blockchain TRL Title - TRL 3	2021-22	Independent Assignment/Non- academic Study Project	Atharva Paramsukh Paliwal app.paliwal@gmail. com 7020396354 Student
128	IR2022- 771750	30-11 0001	IOT based Smart Crate Weighing Machine for Agriculture System TRL Title - TRL 3	2020-21	Academic Requirement/Stu dy Project	Pravinkumar Mahadeorao Sonsare sonsarep@rknec.ed u 9422731370 Faculty
129	IR2022- 771728	30-11 0001	Gesture based I/O system TRL Title - TRL 3	2021-22	Academic Requirement/Stu dy Project	Aryan Gupta itsmyid57@gmail.c om 9096484057 Student
130	IR2022- 771580	30-11 0001	Survey And Analysis Of Different Transformer Models For Abstractive Text Summarizat ion TRL Title - TRL 3	2021-22	Academic Requirement/Stu dy Project	Shubham Saboo sabooshubham200 0@gmail.com 9405320787 Alumni
131	IR2022- 790846	30-11 0001	Mental Health Portal TRL Title - TRL 3	2021-22	Academic Research Assignment/Indu stry Sponsored Project	Jereen Valsson jereenv2@gmail.co m 9423110133 Student

132	IR2022- 792570	30-11 0001	REMOTE METER READING AND BILLING TRL Title - TRL 3	2019-20	Academic Research Assignment/Indu stry Sponsored Project	rashmi welekar rashmi.welekar@g mail.com 9850396030 Faculty
133	IR2022- 792579	30-11 0001	Remote Bike Access System TRL Title - TRL 3	2020-21		rashmi welekar rashmi.welekar@g mail.com 9850396030 Faculty
134	IR2022- 806912	30-11 0001	Gender Recognition By Voice TRL Title - TRL 3	2021-22	Academic Requirement/Stu dy Project	Vaidehi Choudhari choudharivd@rkne c.edu 7767877936 Student
135	IR2022- 806859	30-11 0001	License Plate Plate Detection using YOLO v4 TRL Title - TRL 3	2021-22		Rishabh Rathi Rishabhrathi000@g mail.com 9960053097 Alumni
136	IR2022- 790669	30-11 0001	Smart City Waste Managemen t System through ICT and IOT driven Solution TRL Title - TRL 1	2021-22	Academic Requirement/Stu dy Project	Neeraj Dwivedi dwivedinr@rknec.e du 7741945024 Student
137	IR2022- 792809	30-11 0001	THE WATCH- KEEPER: A SECURITY SYSTEM TO PREVENT GAS EXPLOSION S TRL Title - TRL 3	2019-20	Academic Research Assignment/Indu stry Sponsored Project	Aarti Karandikar aartikarandikar@g mail.com 9766008513 Faculty CS004

138	IR2022- 806715	30-11 0001	CHABOT BASED CRIME REGISTRAT ION & DESCRIPTION & DESCRIPTI	2020-21		Ashish Chandak chandakav@rknec. edu 8237851429 Faculty AD13010
139	IR2022- 806885	30-11 0001	DESIGN AND TOPOLOGY OPTIMIZATI ON OF STEERING UPRIGHT TRL Title - TRL 3	2021-22	Academic Requirement/Stu dy Project	ALOK KUMAR JHA jhaak1@rknec.edu 7987443783 Faculty jhaak1
140	IR2022- 806970	30-11 0001	A System for Assisting a Visually Impaired person TRL Title - TRL 3	2021-22	Academic Requirement/Stu dy Project	Shailendra Someshwar Aote shailendra.aote@g mail.com 9890510477 Faculty aotess1
141	IR2022- 812868	30-11 0001	A Security System for Detecting Trespassers TRL Title - TRL 3	2020-21	Academic Requirement/Stu dy Project	Devishree Naidu devishree.naidu@g mail.com 9422487120 Faculty CS009

# **Prototypes**

Sr. No.	Innova tion ID	Date of Submis sion	Innovation Title	FY of Develop ment	Developed as part of	Team Lead Details
1	IR2023 - 87484 0	25-08- 2023	EXPLORER Ball Robot TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Arpit R. Paunikar paunikarar1@rk nec.edu

2	IR2023 - 87425 2	24-08- 2023	PerkVenue - Blockchain based Reward Point System TRL Title - TRL 5	2022-23	Academic Requirement/Stud y Project	Harsh Sandesh Gupta guptahs_1@rkne c.edu
3	IR2023 - 87402 6	22-08- 2023	Arduino based obstacle avoiding robot car TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	burhanuddin saify saifybs@rknec.ed u
4	IR2023 - 87400 1	22-08- 2023	RC Hand Brake system TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Vineet Shah shahvv@rknec.ed u
5	IR2023 - 87395 2	21-08- 2023	Fire Fighting Robot TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Arin Tiwari tiwaria2@rknec.e du
6	IR2023 - 87393 4	21-08- 2023	AUTOMATIC IRON MECHANISM TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	DARSHAN I BONDRE ,PRIYANSHU R AGRAWAL ,YASH S TRIPATHI agrawalpr_3@rkn ec.edu
7	IR2023 - 87393 3	21-08- 2023	AUTOMATIC IRON MECHANISM TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	DARSHAN I BONDRE ,PRIYANSHU R AGRAWAL ,YASH S TRIPATHI agrawalpr_3@rkn ec.edu
8	IR2023 - 87393 2	21-08- 2023	AUTOMATIC IRON MECHANISM TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	DARSHAN I BONDRE ,PRIYANSHU R AGRAWAL ,YASH S TRIPATHI agrawalpr_3@rkn ec.edu

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9	IR2023 - 87393 1	21-08- 2023	AUTOMATIC IRON MECHANISM TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	DARSHAN I BONDRE ,PRIYANSHU R AGRAWAL ,YASH S TRIPATHI agrawalpr_3@rkn ec.edu
10	IR2023 - 87393 0	21-08- 2023	AUTOMATIC IRON MECHANISM TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	DARSHAN I BONDRE ,PRIYANSHU R AGRAWAL ,YASH S TRIPATHI agrawalpr_3@rkn ec.edu
11	IR2023 - 87389 3	21-08- 2023	universal hose pipe connector TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Kartikeyan Venkatesh venkateshk@rkn ec.edu 9860979321
12	IR2023 - 87298 3	12-08- 2023	Power and Area Aware Digital Fingerprint Generator based on Bump Physically Unclonable Function TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Rutuparna Manish Patkar rutuparnap42@g mail.com
13	IR2023 - 87246 1	07-08- 2023	ATTENDANCE MANAGEMENT SYSTEM USING FACE DETECTION AND RECOGNITION TRL Title - TRL 6	2021-22	Academic Requirement/Stud y Project	Akhilesh Mishra aakhileshmishra 2001@gmail.com
14	IR2023 - 87218 8	05-08- 2023	ON TREE MANGO FRUIT DETECTION and COUNTING SYSTEM TRL Title - TRL 4	2021-22	Academic Requirement/Stud y Project	Romil Mahajan mahajanrp@rkne c.edu

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15	IR2023 - 87212 4	04-08- 2023	American Sign Language Recognition & Translation using Deep Learning frameworks TRL Title - TRL 6	2022-23	Academic Requirement/Stud y Project	Ketaki Tank tankkp@rknec.ed u
16	IR2023 - 87197 3	01-08- 2023	To develop a facial authentication system that is able to recognize multiple individuals in the same image.  TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Ayush Umesh Jain jainau@rknec.ed u
17	IR2023 - 87192 9	31-07- 2023	Dynamic Attendance Management System TRL Title - TRL 4	2021-22	Academic Requirement/Stud y Project	Purva Pramod Bawankar bawankarpp_1@r knec.edu
18	IR2023 - 87189 8	31-07- 2023	Early Detection of Glaucoma using CNN Architecture TRL Title - TRL 4	2022-23	Academic Research Assignment/Indus try Sponsored Project	Ayush Balpande ayushbalpande0 2@gmail.com
19	IR2023 - 87184 5	30-07- 2023	Smart Agriculture using IoT TRL Title - TRL 6	2022-23	Academic Requirement/Stud y Project	Amey R Thakare ameythakare03@ gmail.com
20	IR2023 - 87183 0	29-07- 2023	A Swallowable Medical Device TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Krish Tomar tomarks@rknec.e du
21	IR2023 - 87175 7	27-07- 2023	A SYSTEM FOR DETECTION OF MOISTURE CONTENT IN SANITARY PAD	2022-23	Academic Requirement/Stud y Project	Roshan Ashok Patar patarra@rknec.e du

			TRL Title - TRL			
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22	IR2023 - 87175 3	27-07- 2023	COMMUNICATIO N BETWEEN ENERGY METERS AND PLC BASED ON MODBUS PROTOCOL TRL Title - TRL 4	2022-23	Academic Research Assignment/Indus try Sponsored Project	SIDDHESH RAVINDRA NANDANWAR siddheshnandan war123@gmail.co m
23	IR2023 - 87175 1	27-07- 2023	Shoulder Rehabilitation Using Virtual Physiotherapy System TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Siddhesh Gupta guptas_2@rknec. edu
24	IR2023 - 87165 7	25-07- 2023	Effective UV-C (Ultraviolet) Air Flow Disinfection System for Burn Patients outside Intensive Care Unit TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Manthan Diliprao Ingale ingalemd@rknec. edu
25	IR2023 - 87154 1	22-07- 2023	Solar operated pesticide sprayer machine using IOT technology TRL Title - TRL 6	2022-23	Academic Requirement/Stud y Project	Shrijal Rai raishrijal@gmail. com
26	IR2023 - 86245 7	29-04- 2023	Design And Development of Solar Dryer For Floral waste disposal TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Harsh Tiwari tiwarihv_1@rkne c.edu
27	IR2023 - 86111 4	25-04- 2023	Laser Dimension Measurement System (LDMS) for Fused Deposition	2022-23	Academic Research Assignment/Indus try Sponsored Project	Saurabh Khanna khannass@rknec .edu

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			Modeling (FDM) 3D printer TRL Title - TRL 4			
28	IR2023 - 86099 9	25-04- 2023	Energy harvesting device for 2 wheeler suspension TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Hrushikesh Pawar hkpawar04@gma il.com
29	IR2023 - 86017 4	23-04- 2023	Multi-Purpose Remote-Operated Container for solar parabolic dish collector with attached receiver TRL Title - TRL 4	2022-23	Academic Research Assignment/Indus try Sponsored Project	Shrey Chachra chachrasb@rkne c.edu
30	IR2023 - 86017 3	23-04- 2023	Disease Detection In Tomato Plant TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Mayank Jitendra Tiwari tiwarimj@rknec.e du
31	IR2023 - 86012 9	23-04- 2023	An Evacuated tube based concentrating solar cooking system  TRL Title - TRL  4	2022-23	Academic Requirement/Stud y Project	ADVAIT N. KHADGI khadgian@rknec. edu
32	IR2023 - 85932 0	19-04- 2023	Detection of Pneumonia and COVID-19 using Deep Learning TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	PRASHANT KUMAR kumarp_3@rkne c.edu
33	IR2023 - 85860 0	15-04- 2023	Vehicle Detection For Accident Prevention TRL Title - TRL 6	2022-23	Academic Requirement/Stud y Project	Anwesha Singh singha_5@rknec. edu

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34	IR2023 - 85859 9	15-04- 2023	Vehicle Detection For Accident Prevention TRL Title - TRL 6	2022-23	Academic Requirement/Stud y Project	Anwesha Singh singha_5@rknec. edu
35	IR2023 - 85859 8	15-04- 2023	Vehicle Detection For Accident Prevention TRL Title - TRL 6	2022-23	Academic Requirement/Stud y Project	Anwesha Singh singha_5@rknec. edu
36	IR2023 - 85859 7	15-04- 2023	Vehicle Detection For Accident Prevention TRL Title - TRL 6	2022-23	Academic Requirement/Stud y Project	Anwesha Singh singha_5@rknec. edu
37	IR2023 - 85842 3	15-04- 2023	Real-Time Pothole and Patches Detection using Computer Vision. TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	NABEEL KHAN khann@rknec.ed u
38	IR2023 - 85481 2	11-04- 2023	Network Security Tools for Rapid Inspection TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Sandesh Sachdev sachdevst@rknec .edu
39	IR2023 - 85458 2	10-04- 2023	Pest-robo TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Yash Chotwani chotwaniyp@rkn ec.edu
40	IR2023 - 85452 3	10-04- 2023	FLYING OBJECT DETECTION AND RECOGNITION TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Aniket Pardhi pardhiar_1@rkne c.edu
41	IR2023 - 85450 5	10-04- 2023	Virtual Dressing Room TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Rohan Raggad raggadrr@rknec. edu

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42	IR2023 - 85450 6	10-04- 2023	Virtual Dressing Room TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Rohan Raggad raggadrr@rknec. edu
43	IR2023 - 85421 8	10-04- 2023	Automation Scripts for Portfolio Management TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Anshul Sharma sharmaar_4@rkn ec.edu
44	IR2023 - 85396 0	09-04- 2023	MACHINE LEARNING BASED OPTIMUM YIELD FORECASTING: SMART FARMING IN INDIA TRL Title - TRL 4	2022-23	Academic Research Assignment/Indus try Sponsored Project	Shashank Surendra Singh Bisht bishtss_1@rknec. edu
45	IR2023 - 85388 8	09-04- 2023	Meeting Made Easy TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Arjun Thakur thakurap_1@rkn ec.edu
46	IR2023 - 85381 5	08-04- 2023	SAGE - The Multipurpose Voice Assistant TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Ishita Mendhekar ipmendhekar@g mail.com
47	IR2023 - 85374 3	08-04- 2023	Collaborative Live Code Editor with Audio Conferencing TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Malhar Deshkar malhar19deshka r@gmail.com
48	IR2023 - 85374 0	08-04- 2023	ManiacNFT TRL Title - TRL 4	2021-22	Academic Requirement/Stud y Project	Ajinkya Wadekar wadekarar_1@rk nec.edu
49	IR2023 - 85355 0	07-04- 2023	"Prediction of assembly line stoppages at Mahindra Tractor Plant Nagpur"	2022-23	Academic Requirement/Stud y Project	Priyanshu Sawarkar priyanshu.sawar kar@gmail.com

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			TRL Title - TRL 4			
50	IR2023 - 85354 3	07-04- 2023	Detection of Diseases in Tomato Plant TRL Title - TRL 4	2021-22	Academic Requirement/Stud y Project	Anshul Sharma sharmaar_4@rkn ec.edu
51	IR2023 - 85353 5	07-04- 2023	Self-Care Application <b>TRL Title - TRL</b> <b>4</b>	2022-23	Academic Requirement/Stud y Project	Anshul Sharma sharmaar_4@rkn ec.edu
52	IR2023 - 85337 9	06-04- 2023	Automatic Domain Identification Using Machine Learning TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Ankita Gore gorea@rknec.edu
53	IR2023 - 85336 1	06-04- 2023	DHRUVTARA - A blind guiding and searching stick via speech commands TRL Title - TRL 4	2021-22	Academic Requirement/Stud y Project	Tanaya Wadibhasme tanayawadibhas me@gmail.com
54	IR2023 - 83779 2	06-04- 2023	Smart Water Distribution and Management System TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Hatim Shakir shakirhm@rknec .edu
55	IR2023 - 83751 8	05-04- 2023	Pneumonia detection through Image Classification Using CNN TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Mohit Nilkute nilkutemk@rkne c.edu
56	IR2023 - 83749 6	05-04- 2023	DYANAMIC RESPONSE ASSESSMENT OF RAILWAY BRIDGE USING INTERNET OF	2021-22	Academic Research Assignment/Indus try Sponsored Project	Rajesh Agare agarerg@rknec.e du

			THINGS TRL Title - TRL 4			
57	IR2023 - 83736 2	04-04- 2023	Automatic Punctuator using deep learning techniques. TRL Title - TRL 4	2022-23	Academic Research Assignment/Indus try Sponsored Project	Yugant Gholase gholaseym@rkne c.edu
58	IR2023 - 83726 5	04-04- 2023	PREDICTION OF KIDNEY DISEASE SEVERITY USING MACHINE LEARNING TRL Title - TRL 6	2022-23	Academic Requirement/Stud y Project	Vedant Saboo saboovv@rknec.e du
59	IR2023 - 83708 4	04-04- 2023	Hand gesture mouse control TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Piyush Deorao Pilare pilarepd@rknec.e du
60	IR2023 - 83707 2	03-04- 2023	A low-cost Air Quality Monitoring IoT System using Node MCU TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Jash Baraliya baraliyaja@rknec .edu
61	IR2023 - 83703 8	03-04- 2023	Fol-Bot: Smart Luggage Carrier using Wi-Fi RSSI TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Kunal Kanojiya kanojiyakg@rkne c.edu
62	IR2023 - 83689 9	02-04- 2023	Sign language Interpreter for Communication with Deaf and Dumb Individuals TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Ninad Shende shendenn@rknec .edu

63	IR2023 - 83682 1	01-04- 2023	Multi layer Anti- Theft System TRL Title - TRL 4	2022-23	Academic Requirement/Stud y Project	Rakshit Najbile najbilery@rknec. edu
64	IR2023 - 83680 8	01-04- 2023	POINT OF CARE DEVICE FOR MEASUREMENT AND ANALYSIS OF VITAL PARAMETERS TRL Title - TRL 4	2022-23	Academic Research Assignment/Indus try Sponsored Project	Vivek kaushik kaushikvivek121 @gmail.com
65	IR2022 - 80684 3	29-09- 2022	Online Video Lecture Summarization TRL Title - TRL 4	2021-22	Academic Requirement/Stud y Project	Shubhangi C. Tirpude tirpudes@rknec.e du
66	IR2022 - 80213 5	27-09- 2022	Detecting Disaster from text data using machine learning TRL Title - TRL 4	2021-22	Academic Requirement/Stud y Project	Soham Mundhada soham.mundhad a@gmail.com
67	IR2022 - 79983 0	26-09- 2022	Development of electric all terrain vehicle TRL Title - TRL 7	2021-22	Independent Assignment/Non- academic Study Project	Hrushikesh Pawar pawarhr@rknec.e du
68	IR2022 - 79636 1	22-09- 2022	Development of Integrated Test Set for SoC-SoH Estimation of Lithium-Ion Battery TRL Title - TRL 4	2021-22	Academic Research Assignment/Indus try Sponsored Project	Ujwal Narendra Jibhkate ujwaljibhkate@g mail.com
69	IR2022 - 79635 3	22-09- 2022	Development of Integrated Test Set for SoC-SoH Estimation of Lithium-Ion Battery TRL Title - TRL 4	2021-22	Academic Research Assignment/Indus try Sponsored Project	Ujwal Narendra Jibhkate ujwaljibhkate@g mail.com

70	IR2022 - 79096 8	16-09- 2022	Multilingual Meet Summarizer <b>TRL Title - TRL</b> <b>4</b>	2021-22	Academic Requirement/Stud y Project	Vasundhara Rathod rathodv1@rknec. edu
71	IR2022 - 78229 9	05-09- 2022	PlagCheck: A plagiarism detection tool TRL Title - TRL 4	2021-22	Academic Research Assignment/Indus try Sponsored Project	Abhiyant gwalani gwalanian@rknec .edu
72	IR2022 - 77212 4	23-08- 2022	FAKE NEWS DETECTION USING MACHINE LEARNING TRL Title - TRL 6	2021-22	Academic Research Assignment/Indus try Sponsored Project	Anuragini Paunikar arpaunikar05@g mail.com
73	IR2022 - 77179 6	22-08- 2022	Prediction of assembly line stoppages at Mahindra Tractor Plant Nagpur TRL Title - TRL 4	2021-22	Academic Requirement/Stud y Project	Priyanshu Sawarkar priyanshu.sawar kar@gmail.com
74	IR2022 - 77173 3	22-08- 2022	Fault detection in manufactured products (steel surfaces) TRL Title - TRL 4	2021-22	Academic Requirement/Stud y Project	Shubham joshi joshishubham03 01@gmail.com
75	IR2022 - 77158 4	21-08- 2022	Krytominters TRL Title - TRL 4	2021-22	Independent Assignment/Non- academic Study Project	Atharva Paramsukh Paliwal app.paliwal@gma il.com
76	IR2022 - 77134 5	20-08- 2022	DockIT TRL Title - TRL 4	2021-22	Independent Assignment/Non- academic Study Project	Rishikesh Kale rvk.rishikeshkale @gmail.com
77	IR2022 - 77115 2	19-08- 2022	A Question Answering System (Multilingual)	2021-22	Academic Requirement/Stud y Project	Krishna Rathi krishna.rathi222 @gmail.com

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			TRL Title - TRL 4			
78	IR2022 - 77106 8	19-08- 2022	Adsorptive treatment of dye bearing waste water by using low cost adsorbent TRL Title - TRL 9	2021-22	Academic Research Assignment/Indus try Sponsored Project	TRIPTI GUPTA guptatb@rknec.e du
79	IR2022 - 77106 5	19-08- 2022	Smart Speed Control Device for Mopeds TRL Title - TRL 4	2021-22	Academic Requirement/Stud y Project	Mrugank Joshi mrugankjoshi12 3@gmail.com
80	IR2022 - 77029 8	18-08- 2022	The Imperial Lubricants TRL Title - TRL 9	2019-20	Independent Assignment/Non- academic Study Project	Apurv Sanjay Dey apurvdey4@gmai 1.com
81	IR2022 - 77024 0	17-08- 2022	Development of Integrated Test Set for SoC-SoH Estimation of Lithium-Ion Battery TRL Title - TRL 4	2021-22	Academic Research Assignment/Indus try Sponsored Project	Ujwal Narendra Jibhkate ujwaljibhkate@g mail.com
82	IR2022 - 76951 6	16-08- 2022	Development of Integrated Test Set for SoC-SoH Estimation of Lithium-Ion Battery TRL Title - TRL 4	2021-22	Academic Research Assignment/Indus try Sponsored Project	Ujwal Narendra Jibhkate ujwaljibhkate@g mail.com
83	IR2022 - 76878 5	12-08- 2022	Design, Development and Manufacturing of Accidental Fall Protection Device for High Elevation Ladders of Windmill Towers	2019-20	Academic Research Assignment/Indus try Sponsored Project	Vinayak Sood vinayaksood23@ gmail.com

			TRL Title - TRL 4			
84	IR2022 - 76859 2	12-08- 2022	Battery Thermal Management Systems with improved cooling TRL Title - TRL 4	2020-21	Academic Research Assignment/Indus try Sponsored Project	Pranjali Tete pranjalitete@gma il.com
85	IR2022 - 76855 0	12-08- 2022	Self cooled solar photovoltaic system TRL Title - TRL 4	2020-21	Academic Research Assignment/Indus try Sponsored Project	Shubham Vinod Deshmukh deshmukhsv3@g mail.com
86	IR2022 - 76844 0	12-08- 2022	Design and development of CAM operated in-pipe robot  TRL Title - TRL  4	2019-20	Academic Research Assignment/Indus try Sponsored Project	Prajjawal Khandelwal prajjawalkhandel wal@gmail.com
87	IR2022 - 76823 2	11-08- 2022	ALPHA-COMP, Learning braille with fun! (Interactive Learning Game for Visually Impaired) TRL Title - TRL 4	2021-22	Independent Assignment/Non- academic Study Project	Swaraj Rathi swarajrathisbr@g mail.com
88	IR2022 - 76821 5	11-08- 2022	A SYSTEM AND A METHOD FOR LOCKING AND UNLOCKING A VEHICLE TRL Title - TRL 4	2021-22	Academic Requirement/Stud y Project	Prasheel Thakre thakrepn2@rkne c.edu
89	IR2022 - 76820 0	11-08- 2022	A Device for Rolling and Unrolling a Roller Shutter TRL Title - TRL 4	2019-20	Academic Requirement/Stud y Project	Sumit Nandkishor Patil patil.sushant99@ gmail.com

90	IR2022 - 76800 4	10-08- 2022	Qualitative detection of Algae using RGB Based indices from drone images TRL Title - TRL 4	2021-22	Academic Requirement/Stud y Project	Shubh Agrawal agrawalsn_2@rk nec.edu
91	IR2022 - 76785 2	10-08- 2022	A Device for Fuel Adulteration Detection TRL Title - TRL 4	2021-22	Academic Research Assignment/Indus try Sponsored Project	Ankita Harkare harkareah@rkne c.edu
92	IR2022 - 76784 8	10-08- 2022	E-VEHICLE FOR AGRICULTURE ACTIVITIES TRL Title - TRL 4	2019-20	Academic Requirement/Stud y Project	Jagdish Deorao Kene kenejd@rknec.ed u
93	IR2022 - 76772 8	09-08- 2022	SMART AAKASHWANI: THE DIGITIZED SPEAKING CLOCK TRL Title - TRL 4	2021-22	Academic Requirement/Stud y Project	Tejas Raghunath Sathawane sathawanetr@rk nec.edu
94	IR2022 - 76766 4	09-08- 2022	AN IOT BASED ANTI-COLLISION SYSTEM FOR FISHING VESSEL TRL Title - TRL 4	2021-22	Academic Requirement/Stud y Project	Pranav Sanjay Wazarkar wazarkar3108@g mail.com
95	IR2022 - 76764 0	09-08- 2022	Optimized cross- section of profile for endodontic files TRL Title - TRL 4	2019-20	Academic Requirement/Stud y Project	Vinay Mehta vinaymt28@gmai l.com
96	IR2022 - 76755 2	08-08- 2022	A Solar Panel for generating Solar energy TRL Title - TRL 4	2020-21	Academic Requirement/Stud y Project	Dr. SANJAY B. POKLE poklesb@rknec.e du

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97	IR2022 - 76753 5	08-08- 2022	A Machine for Performing Exercise TRL Title - TRL 4	2020-21	Academic Requirement/Stud y Project	Pallavi Keshavrao Parlewar parlewarpk@rkne c.edu
98	IR2022 - 76746 7	08-08- 2022	DESIGN AND DEVELOPMENT OF A SYSTEM FOR NADI PARIKSHAN (PULSE RATE ANALYSIS) AS PER AYURVEDIC THEORY TRL Title - TRL 4	2020-21	Academic Requirement/Stud y Project	Ameya Bidwai ameya.bidwai@g mail.com
99	IR2022 - 76729 5	06-08- 2022	A DEVICE FOR CLEANING CEILING FAN TRL Title - TRL 4	2020-21	Academic Requirement/Stud y Project	Vipul Sureshrao Lande landevs@rknec.e du
100	IR2022 - 76725 3	06-08- 2022	Transfer of data between devices using Li-FI TRL Title - TRL 4	2021-22	Academic Requirement/Stud y Project	Anushka Rajesh Khadatkar khadatkarar@rk nec.edu
101	- 2022 NMT&NATM Resort Assignment Try Sports		Academic Research Assignment/Indus try Sponsored Project	Vishal Meshram vishalmmeshram @gmail.com		
102	IR2022 - 76705 2	05-08- 2022	An Anchorage Plate for Post Tensioning of a Prestressed Concrete TRL Title - TRL 4	2021-22	Academic Requirement/Stud y Project	Monika Jain mnkjain26@gmai 1.com

## STARTUPS REGISTRED ON YUKTI PORTAL:

Sr. No	Startu p ID	Startup Title	Startup Registrati on Type	GST/CIN No	Team Lead Details
1	IR202 3- 85854 5	Industrial fuse puller TRL Title - TRL 4			Neeraj Dwivedi dwivedin1211@gmail.com 7709803366 Student 20201000918550
2	IR202 2- 81393 7	BIO SPECTRONIC S PVT LTD TRL Title - TRL 5	Private Limited Firm (Pvt. Ltd.)	U51909MH2022PTC374 856	SANGEETA SUSHANT SAMMANWAR sangeeta.sam2411@gmail.co m 9503714940 Entrepreneur palekarsd1@rknec.edu,Rese arch Scholar
3	IR202 2- 81360 9	RPC Projects TRL Title - TRL 8	SME Registered Unit (Valid GST No.)	27AAUFR8382A1ZQ	Poonam Gupta rpcprojectss@gmail.com 8390845628 Alumni 2016-7-11
4	IR202 2- 81225 5	HAPPICO FOODS PRIVATE LIMITED TRL Title - TRL 9	Private Limited Firm (Pvt. Ltd.)	U15400MH2022PTC386 840	Yash Pande yashpande7@gmail.com 7758896405 Alumni 2018-06-22
5	IR202 2- 81124 0	Ira Industries MSME SSI Registration UAN: MH20A00252 31 TRL Title - TRL 9	SME Registered Unit (Valid GST No.)	27GDQPS7717R1Z4	Akshay Shirpurkar akshay.2795@gmail.com 7796060676 Alumni 13CEU271CEU2
6	IR202 2- 81079 6	GearToCare TRL Title - TRL 9	Not Yet Registered as an entity	null	Suraj Birthariya surajbirthariya@gmail.com 9960904902 Entrepreneur
7	IR202 2- 77029 4	The Imperial Lubricants TRL Title - TRL 9	SME Registered Unit (Valid GST No.)	27COFPD3568H1ZV	Apurv Sanjay Dey apurvdey4@gmail.com 8329082456 Alumni
8	IR202 2- 77018 4	Empowr Club TRL Title - TRL 7	Private Limited Firm (Pvt. Ltd.)	U74999MH2021PTC367 956	Mehr Kohli kohlimehr@gmail.com 8450940001 Entrepreneur

Sr. No	Startu p ID	Startup Title	Startup Registrati on Type	GST/CIN No	Team Lead Details
9	IR202 2- 76616 2	UFF TRL Title - TRL 9	Private Limited Firm (Pvt. Ltd.)	U74999MH2020PTC337 971	Piyush Chhawsaria chhawsariapiyush@gmail.co m 8329969733 Alumni
10	IR202 2- 76591 7	Agrodia Enterprises LLP TRL Title - TRL 9	Limited Liability Partnership Firm (LLP)	AAT-6447	Harshal Thakare hthakare9@gmail.com 9545897705 Entrepreneur
11	IR202 2- 76496 5	Foster Reads TRL Title - TRL 9	Private Limited Firm (Pvt. Ltd.)	U74999MH2021PTC366 341	Varun Chopra varun@fosterreads.com 9881167575 Alumni
12	IR202 2- 76496 0	ALENTAR ELECTRIC LLP TRL Title - TRL 7	Limited Liability Partnership Firm (LLP)	AAP-9182	Ayush Mishra aayush9xm@gmail.com 7745843649 Entrepreneur
13	IR202 2- 76491 4	Somebuddy Technologies LLP TRL Title - TRL 9	Limited Liability Partnership Firm (LLP)	AAJ-8105	Vaibhav Kaushik vaibhav3521@gmail.com 7083873376 Entrepreneur
14	IR202 2- 76468 0	Sigmatronics Innovation Pvt Ltd <b>TRL Title -</b> <b>TRL 9</b>	Private Limited Firm (Pvt. Ltd.)	U72900MH2021PTC362 954	Siddharth Mishra siddharth@sigmatronics.co.i n 9890455177 Alumni

# STARTUPS INCUBATED BUT NOT REGISTRED ON YUKTI PORTAL:

SN	Startup Name	Description	Founder
1	Easywire Technology	Electronic product design and support services	Mr. Sumit Dandekar BE (EDT) 2017
2	SmileBird	Smilebird dental is a platform for a chain of dental clinics.	Mr. Mohit Saluja, BE (CSE), 2018 Mr. Gulshan Saluja BTech, VNIT

3	Unboxing Art	Unboxing Art offers thoughtfully structured art programs, connects you to the right mentors & provides an art community	Hussain Rashid B.E (Industrial Engineering) 2014
4	Anticipate	The app's main focus will be on taking a proactive approach to social engineering security in place of the usual preventive and reactive methods	Isha Mujumdar B.E (Computer Science) 2018
5	MechHelp	A platform for the repair of vehicle	Gaurav Chauhan, III Yr BTech (EE)
6	Homeo	Platform to provide home service maids	Sanket Joshi & Ankit Lakhi, I Yr MBA
7	Lifes	Platform to aggregate and provide ambulance services	Sujal Agrawal, Gargi Fand, & Sudhansh Chourasia I Yr BTech (EE)
8.	Quikspare	A platform for the delivery of spare parts to local mechanics	Naman Aneja, I Yr MBA
9.	ICON Adverts	Performance Marketing Agency	Tushar Khanna B.Tech IT (2023)
10.	ShirtUp	New clothing brand for working women	Mytri Shah, MBA Integrated (2023)
11.	Prem Atta	Prem Aatta – Providing freshly grounded atta on call	Rahul Goyal B.Tech (Electronics Engineering) 2023
12	Asha A Creations	AI based Interior design Service provider	Ayush Mate, MBA Integrated (2023)
13	Prograssia	Edtech platform which provide workshop/training for skill development	Vinay Dhawad Btech(ECE)
14	Writable	Digital handy notebook	Arnav Balpande Btech 2nd year Cyse, Vedank naidu,
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			Btech 2nd year Cyse, Jatin Baheti, Btech 2nd year Cyse
15	Homiz	E-commerce for customized streert wear clothing brand	Adesh Bode, B.Tech 1st year, CSE Data Science, Soumitra Aghor, Btech 1st Year E&CS, Prathamesh Jangle, B.Tech 1st year, IT
16	Shashtav Charging Bharat Private Limited CIN: U27900MH2023PTC401951	Battery Charging Station	Ashwin Dube, Btech 4th yr

# **Seed Fund Support:**

Sr.No	Name of the start up	Name of the Founder/s	Funding Support Provision	Funding Disbursed in 2022-23
1	Empowr Club	Mehr Kohli (ECE)-2022	500,000	<b>Rs 5,00,000/-</b> Date: 22.09.2022
2	Foster reads	Varun Chopra (Ind Eng)- 2020	500,000	<b>Rs 5,00,000/-</b> UCBAR 52022072500253671 Date: 25.07.2022
		Total	Rs 10,00,000/-	

# RCOEM TBI One Semester Internship 2022-23

19 Students did their one-semester internship at RCOEM TBI and worked on their business ideas. Following are the details:

SN	Name	Branch	Idea Title
1.	Rahul Goyal	Electronics Engineering	Prem Aatta – Providing freshly grounded atta on call
2.	Maitri Shah	MBA Integrated	ShirtUp – New clothing brand for working women
3.	Tushar Khanna	Information Technology	ICON Advertise – Digital marketing agency specializing in performance marketing

4.	Ayush Mate	MBA Integrated	Asha Creations - Interior design Service provider
5.	Aryan Patne & Sumit Rangari	Electrical Engineering	FoodCrunch – Ready to make ingredients and recipe providers
6.	Kartik Khandelwal	MBA Integrated	Biodegradable sanitary napkins
7.	Sukhjeet Singh Kohli	Electronics Engineering	Fuilit – Loyalty based reward system for petrol pump customers
8.	Ram Bhute	Mechanical Engineering	Physio Diagnostic Device for physiotherapy
9.	Harsh Shahu	MBA Integrated	Tourist Services provider
10.	Jay Birthariya, Hritik Chhangani, and Akash Birthariya	Electronics Engineering	GearToCare – On call doorstep vehicle repairing and servicing provider. Startup is already incubated at RCOEM TBI
11.	Naman Vij	MBA Integrated	Business Expansion and Modification of Delivery System of Colors and Chemicals Industry
12.	Arshdeep Singh Narula	MBA Integrated	Involvement in EV batteries and battery swapping station business
13.	Sanket barde	MBA Integrated	Providing New Age of Living Space at Minimal Cost
14.	Hritik vyas	MBA Integrated	Internal Factory Production System Modification & Market Impact on Business by Promotion through social media at L N Foods Pvt Ltd
15.	Shashank Mehani	MBA Integrated	Analyzing the allocation of funds and using them in an efficient way.
16.	Sarthak Vij	MBA Integrated	Business Expansion and Modification of Delivery System of Colors and Chemicals Industry

#### MSME Hackathon 2.0

Received 11 Applications and submitted 5 Proposals after mentoring and evaluation, Grant proposal submitted of Rs. 74.6 Lakhs

**Open Elective:** RCOEM TBI Foundation conducted 40 hours open elective course for the fourth semester students on "Innovation and Entrepreneurship" by Dr. Rupesh Pais

### **Event Organized**

- **Bharat Pitchathon** Idea Pitching Competition organized in collaboration with Headstart on 27th August 2022.
- **Transpreneur'23** Entrepreneurship Development Program organized on 10th January 2023
- **Ideathon'23** Idea Pitching Competition organized on 24th January 2023
- **IdeaTech Expo'23** Project competition and Startup Demo Day organized on 3rd May 2023

## **Participation**

• **TiECon Competition** In this Event RCOEM TBI Startups Pitched their idea & 50 Students attended the event on 24th Feb – 25th Feb 2023

#### Capacity Building: Workshop/session organized for startups:

- Workshop on "Business Model Canvas" on 4th March 2023 By Dr. Rupesh Pais
- Workshop on "Design Thinking, Critical Thinking and Innovation Design" on 11th March 2023 by Prof. Himanshu Shukla
- Session on "**How to Take your startup from Idea to Product**" on 18th March 2023 by Mr. Vaibhav Kaushik
- Session on Idea to "Minimum Viable Product Stage Journey for Startup" on 31st
   March by Satyam Sarma
- Session on "Understanding Govt. Policies & Scheme" on 22nd April 2023 by
   Abhijeet K
- Workshop on "**Problem Solving and Ideation**" on 13th May 2023 by Prof. Himanshu Shukla
- Session on "Digital Marketing for Startup" on 24th June 2023 by Mr. Chinmay Arora

#### Collaboration

- National Entrepreneurship Network supported by Wadhwani Foundation is a
  not-for-profit with the primary mission of accelerating economic development by
  driving job creation through large-scale initiatives in entrepreneurship, small
  business growth, innovation, and skilling.
- **YNOS** The Intelligence Platform for the Indian Startup Ecosystem

#### Institute Innovation & Start-up Policy

The institute has adopted the National Institutional Startup Policy as per the guidelines of MIC, AICTE. The same has been uploaded on the NISP portal and has been disseminated to the students and faculty members.

### **Objectives:**

- Setting direction for the Institute towards streamlining and establishing a strong startup ecosystem in the campus and region.
- Measuring Innovation & Startup ecosystem based on Input, Process, Output, and Outcome-based parameters.
- Focusing on both quantity and more on quality aspects of the Startup Eco-System available at the Institute.
- Also, to measure the impact created by these innovations and Startups in society and the market.

#### **Key Result Areas (KRA):**

- The following KRAs are identified for achieving our objectives:
- Programs and Activities on IPR, Innovation, Start-up Organized & Participated
- Annual Budget Spent on Innovation & Start-up funding, income, and Expenditure
- Innovation, Pre-Incubation & Incubation & Infrastructure Facilities Established
- Awards & Recognition of Students and Faculty Innovations/Start-ups in Various Contests/Events
- Courses on IPR, Innovation & Start-up Offered by Institute
- IP Granted and Published
- Successful Innovations Supported, Produced & Startups Established
- Seed Fund, Angel & Venture Fund Support Raised by Above Start-ups and Innovations
- Tech Transferred & Commercialized

# **ARIIA Participation:**



#### Social Media Links:

Facebook Link

https://www.facebook.com/RCOEM.Official/

Instagram Link

https://www.instagram.com/rcoem\_\_official/

Twitter Link

https://twitter.com/RCOEM\_Official

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(Dr. D. S. Adane) President, IIC RCOEM, Nagpur