CMR College of Engineering & Technology

(UGC Autonomous)

Kandlakoya, Medchal Road, Hyderabad -501401.

Centre for Innovation and Entrepreneurship (CIE)

Annual Report 2020-21

IIC ID: IC201810032

A. **About IIC Institute**

Vision:

CMRCET CIE's Vision is to Consistently churn out successful technology start-ups, creating new generation entrepreneurs and employment, through the best incubation centre hosted within CMRCET

Mission:

CMRCET CIE's Mission is to Promote technology entrepreneurship and support start-up incubation by utilizing the knowledge, resources and expertise of CMRCET and its partners.

CMR College of Engineering & Technology (CMRCET) has established dedicated "**Centre for Innovation and Entrepreneurship (CIE)**" towards developing entrepreneurship and innovation mind-set within College Premises. This will involve range of activities around building start-up ecosystem such as identifying areas of focus and market relevance, building investor relations and business partnerships, leveraging government programs and acceleration initiatives.

The strategic objectives of the CIE are:

- Foster and encourage entrepreneurship
- Commercialize technology-based innovations
- Develop eco-system for sustainable holistic growth

The CIE is expected to provide the following outcomes:

- Further improve the brand value of CMRCET
- Obtain better placements from Corporate due to positive outlook created by CIE
- Improve institutional ranking and quality of incoming students in view of better opportunities and environment being provided
- Improve CMRCET visibility into market by interacting and engaging mentors and funding agencies
- Financially benefit from successfully exited start-ups

B. Brief mention of key functionaries at the IIC Institute

Sl. No.	Name	Designation	Mobile	Email
1	Dr. K. Vijaya Kumar	President	9848272702	hodcse@cmrcet.ac.in
2	Dr. M. Suresh	Vice President	9100073692	msuresh@cmrcet.ac.in
3	Dr. S. Muthu Balaji	Convenor	9047040978	muthusa15@cmrcet.ac.in
4	Mr. Abdul Subhani Shaik	Coordinator	9246190720	sasubhani@cmrcet.ac.in

C. Portfolio/graphical/Tabular representation of Resource strength (human capital and Physical capital) of the IIC institution

Sl. No.	Name of the Resource	Total No.s	Details
1	Total No. of IIC Members	128	Faculty, Students, Entrepreneurs and Industry Members
2	Total No. of IAs	10	Faculty Members from various Departments
3	Total No. of faculty Mentors from Portal	04	Faculty Members from various Departments
4	Pre-Incubation Units, If any	04	Innovation cell, Start-Up Cell, Tinkering Lab, and Design Thinking
5	Incubation Units, If any	01	Support for Entrepreneurial and Managerial Development of MSMEs through Incubator
6	IP Facilitation Unit, If any	01	CIE Centre

D. Highlight Facilities, Infrastructure of Pre-Incubation & Incubation kind and Student bodies/clubs engaged in promotion of Innovation and Entrepreneurship in the campus.

The CIE policies are built upon the below four strong pillars:

1. CIE Infrastructure
2. End-to-End Processes
3. Partner Eco-system
4. Program Management (and Governance)

This section provides the policy framework for each pillar. Further details will be elaborated into separate policy documents, which will be developed in due course.

#	Policy	Description	Compliance
1	CIE Infrastructure	CMRCET will provide infrastructure that includes: • Co-working space for the start-ups • Discussion/conference rooms for discussions, breakout sessions and workshops • Internet connectivity for faster access • Start-up specific hardware and software In addition, CIE will also get established a separate legal entity.	Start-ups being incubated, who have access to CIE facility will: Report time spent in CIE Do not bring guests inside the facility without approval from CIE head or the deputy Do not use CIE infrastructure for personal purpose Leverage the facility to establish and grow start-ups After demonstrating enough progress, start-up will get created as separate legal entity with joint shares with CIE

#	Policy	Description	Compliance
2	End-to-End Processes	The End-to-End processes for incubating start-ups: • Open applications for inviting start-ups to request for incubation quarterly • Share standard 'Start-up Application Form' • Prepare detailed score-card and ranking for start-ups • Finalize 2 start-ups (each in Q1, Q2) and 3 start-ups (each in Q3, Q4) • Incubate around 8-10 start-ups and 1-2 successful exits in Y1. • Start-up exits upon receiving seed funding from angel/HNIs • Any 3rd party service provider will be commercially engaged after detailed review by CIE head, and Principal of CMRCET • Detailed award and incentive scheme will be designed for all stakeholders to motivate contribution in start-ups growth • CIE will be narrow down on specific themes for specialization; and increase the breadth over period of time	Start-ups will adhere to the following: • Apply timely in the format provided by CIE • Show continues progress and work actively on work products and deliverables • Start-ups will agree to the partnership framework recommended by CIE for mutual benefit of all parties • Start-ups will adhere to the guidelines set by CIE in all aspects related to incubation
#	**Policy**	**Description**	**Compliance**
3	Partner Eco-system	CIE will create the following partner eco-system: • Identify and on-board mentors to guide and coach	Start-ups will in-turn do the following:

		the start-ups • Mentors will be chosen based on their experience and expertise relevant to the start-up areas • Establish Industry Collaboration with various corporate, external incubators and technology providers • Develop relationships and motivate angel investors, HNIs, funding agencies and individual entrepreneurs to fund start-ups • Engage 3rd party providers for Finance, HR, Legal, Marketing and other related services – at additional cost to start-up. • Develop Org Structure to Program Manage the CIE; by leveraging existing staff of CMRCET;	• Share their ideas and progress with mentors to seek their guidance and inputs • Provide pitch decks to various internal and external stakeholders • Participate in events, conferences and forums for providing visibility of their solutions • Leverage CIE internal fund and external funding optimally to invest into various service providers supporting start-ups • Dedicate enough time to nurture and progress through implementation of the ideas
#	**Policy**	**Description**	**Compliance**
4	Program Management (and Governance)	CIE will support the following by working with start-ups: • Oversight of their activities and review technical deliverables • Develop additional offerings and capabilities within CIE to provide additional support services to start-ups • Continuously evaluate the start-ups to ensure smart investment into them; and ensure they are progressing • Review dashboards, perform trend analysis and	Start-ups will in-turn do the following: • Share their ideas and progress with mentors to seek their guidance and inputs • Manage all resources effectively – including labor, infrastructure, funds and access to other repositories • Provide timely reports on the work deliverables • Ensure commitment of the core team members and build sustainable founding/executing teams

		assess ongoing funding need • Expand the scope of incubator to market (outside CMRCET) to encourage outsiders to contribute into the CIE	• Nurture and spread good word about CIE to promote the eco-system being developed

List of IIC Innovation Ambassadors Trained on Innovation, IPR and Entrepreneurship

Sl. No.	Name	Email	Contact
1	Dr. Suresh Merugu	msuresh@cmrcet.ac.in	9848276627
2	Dr P Alekhya	palekhya@cmrcet.ac.in	8309996485
3	Dr. Manir Ahmed	drmanirahmed@cmrcet.ac.in	9707761225
4	Mr. Mohammad Sirajuddin	mdsirajuddin@cmrcet.ac.in	8341382690
5	Dr. Mohd Dilshad Ansari	m.dilshadcse@cmrcet.ac.in	9816387077
6	Mr. Abdul Subhani Shaik	sasubhani@cmrcet.ac.in	9246190720
7	Mr. D. S. Sanjeev	dssanjeev@cmrcet.ac.in	9848283204
8	Mr. B Venkateshwar Rao	bvenkateshwarrao@cmrcet.ac.in	8985193337
9	Dr. P Vijaya Lakshmi	pvijayalaxmi@cmrcet.ac.in	9030540457
10	Dr. Musini Venkateshwarlu	drmvenkateshwarlu@cmrcet.ac.in	9989295635

List of Centres:

S.No	Name of Centre	Year of Facility Creation	Facility Incharge Name	Facility Incharge Email	Facility Incharge Phone
1	Centre for Innovation and Entrepreneurship	2017	Dr. Suresh Merugu	cie@cmrcet.org	9100073692
2	Makers Space	2018	Ms Sowjanya Reddy	rd@cmrcet.org	9652981943
3	Centre for Engineering Education Research	2018	Dudhigal Sowjanya	hodceer@cmrcet.org	9550802816
4	Research & Development Centre	2014	Dr. Merugu Suresh	deanrnd@cmrcet.org	9848276627
5	Science Technology and Innovation Hub	2019	Dr. Suresh Merugu	msuresh@cmrcet.org	9848276627

List of Student Clubs:

S.No.	Name of the club in full	President's name in full	Roll Number
1	League Of Coders Club	N Manish Reddy	18H51A0575
2	UNITE UP FOR A CAUSE Club	Vooturi Akash Nikhil	18H51A0590
3	Web Development Club	Ambadi Ritik Krishnan	18H51A0501
4	FILM FANATICS Club	Beta Tarun Sai	19H51A04M7
5	Student Council Club	Piyush Varma / Sai Teja nangunuri	18H55A0221 / 17H51A04N0
6	Music Club	Malla Harish Bapu Naidu	17H51A0497
7	The Photo Community Club	Kodeboina Anil Kumar, Gaurav Gupta	17H51A04L7
8	Sports Club	Srikar Reddy Molugu	17H51A05G9
9	Social Media Club	Tattari Meghanath	18H51A04E7
10	Voice of Youth Club	Jangili Sathvika	18H51A0142
11	Cybersecurity Club	Aakash Shinde	18H51A05H6
12	Dance Club	Chintala Varsha Reddy	18H51A0506
13	Arts Club	K.S.Sai Vindhya	19H55A0409
14	Circuitronics Club	Sirangi Vamshi Krishika	18H51A0251
15	Literary club	Mohammed Zafar Saif	17H51A04M7
16	Fitness Club	Tanisha Garg	19H51A0527
17	AI Mind Club	Rangaiahgari Abhilash Reddy	18H51A0579
18	GreenRoom Club	Iffat Maria	19H51A05A2
19	Sanskriti Club	Nagula Chendhra Sheker	17H51A0438
20	Vigyan Club	Rahul Raj	18H51A0401
21	Student Conclave Club	P.Varun Kumar Reddy	18H51A05N9

E. Highlight Achievements (Narrative/Graphical/tabular representation)

- Number and Different types of I&E and IPR activities Conducted

Topic	AY 2020-21	AY 2019-20	AY 2018-19	AY 2017-18	AY 2016-17
Innovation & Research Methodology	05	07	03	02	02
IPR & Patent	09	04	02	02	01
Entrepreneurship	12	12	05	04	01
Grand Total	**26**	**23**	**10**	**08**	**04**

- No. of student's & faculty ideas generated

Name	AY 2020-21	AY 2019-20	AY 2018-19	AY 2017-18	AY 2016-17
Students Members	64	47	72	68	21
Faculty Members	04	02	05	03	02
Grand Total	**68**	**49**	**77**	**71**	**24**

- No. of student's & faculty Innovation/prototypes developed

Name	AY 2020-21	AY 2019-20	AY 2018-19	AY 2017-18	AY 2016-17
Students Members	18	11	27	09	04
Faculty Members	06	03	11	11	06
Grand Total	**24**	**14**	**38**	**20**	**10**

- No. of IPs generated, published and granted

No. of IPs	Filed & Published		Granted	
	Students	Faculty	Students	Faculty
AY 2020-21	14	05	00	00
AY 2019-20	06	04	00	00
AY 2018-19	05	04	00	00
AY 2017-18	04	02	00	00
Grand Total	**29**	**15**	**00**	**00**

- No. of Student & Faculty Start-ups/Ventures established.

No. of Start-ups/Ventures	Students	Faculty
AY 2020-21	03	01
AY 2019-20	02	01
AY 2018-19	02	01
Grand Total	**07**	**03**

- Amount spent on promotion and awareness generation on Innovation Entrepreneurship in the campus AND Amount grant or fund supported to student & Faculty lead Innovations, start-ups and IPR

Budget Expenditure for the Last Three Academic Years			
Amount Spent Towards	**AY 2020-21**	**AY 2019-20**	**AY 2018-19**
CIE Activities and IPR & Patents	986500.00	691775.00	583628.00
Publication Charges+ Reward	665500.00	475500.00	338240.00
Grand Total	**1652000.00**	**1167275.00**	**921868.00**

- No. of Technology Transfer and Commercialisation happened

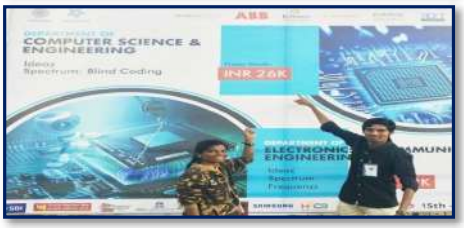
  -Not Available (Under Process)

F. Highlight few best IIC Faculty/Student members and their achievements/ Rewarded for the innovations at different forum
[Profile of few faculties with 2-3 line of their achievements]

- Team "Until the Last Breath", Azar Talha Syed Team Lead has won the First Prize in Grand Finale of Smart India Hackathon Software Edition held at Udaipur, Rajasthan with a Prize Money of Rs. 75,000/-

- Team "INEX", SK Moinuddin Team Lead has won the First Prize in Hackathon at TECHNEX 2019 held at IIT BHU, Varanasi, with a Prize Money of Rs. 50,000/-.

- Mr Sk. Moinuddin and his team has won the 1st position with a cash prize of Rs.26,000/- in cognizance 2019 held at Ideaz in IIT- Roorkee.



- The Team "Tech Warriors" won the second prize in Hackathon at TECHNEX 2019 held at IIT BHU, Varanasi, with a Prize Money of Rs. 15,000/-.

- Macha Nitesh Goud From CSE Department Has Won Rs 3 Lakhs As Techie Of The Year 2020 Conducted By Mindtree Osmosis.

- Mechanical Engineering Students Stood Winners In The Event Design Competition Organized By Skill Lync On 24.07.2019 & Awarded Cash Prize Of Rs. 50,000/-.

- SAE Team Of Mechanical Engineering Were The Winners In The Field Of Technology Innovation And Won A Cash Prize Of INR 40,000/-.

- Aero Design Challenge-Team Techmaniacs Stood 5th Place In All India Level.

- Runner-Up In Effi Cycle 2019 Held From 1st – 5th Oct, 2019, Organized By SAE India At Lovely Professional University, Punjab.

G. Highlight selected best Innovations & images with mention of inventor/innovation name

- The Team "Tech Warriors" won the second prize in Hackathon at TECHNEX 2019 held at IIT BHU, Varanasi, with a Prize Money of Rs. 15,000/-.
- Mr. Rishab Jain (III CSE) and Mr. V Surya Dhanush (III CSE) secured 4th and 5th positions in CTF (Capture the Flag) competition at TECHNEX 2019.
- Mr S. Srujan Kumar (15H51A05H4) Conducted one day workshop on Ethical Hacking and its awareness at KITS Warangal on 08 Feb 2019.
- Mr B. Surya Teja (III CSE) selected as Student Chapter Joint Secretary for an NGO "Telangana Information Technology Association" in January 2019.
- Mr B. Surya Teja (III CSE) selected as an Executive Board Member of an NGO "Literacy Helping Hands." The first and foremost purpose of Literacy Helping Hands is to improve the literacy rates of the states of the nation, while developing meaningful relationships with the needy and helping them for education in any financial situation.
- Four teams from CSE and ECE Department participated in "Grand Finale Round of SIH 2019" different places in india from 2nd & 3rd March 2019.

  Those teams are:
  - Creative Concepts
  - INEX,
  - Until the Last Breathe and
  - Marx
- Mr SK Moinuddin appointed as the Joint Secretary in the Start-up ARRO, Hyd.
- Mr Akula Praveen & Mr D. Manideep are awarded second prize in International NASA space apps challenge.
- Mr Sk Moinuddin is the state winner of NASA Space Apps Challenge conducted in IARE, Hyd.
- Mr A. Ajay got the certificate of achievement in Smart City Hackathon.
- Mr G Ganesh Kumar and his team got third prize in Space Challenge conducted at NOIDA, Delhi.
- Ms. B. Lalitha sri got 3rd prize in SHODANA of EPICS.
- Ms D Harshitha got certification of merit in Hackathon India.

- Mr Sk Moinuddin has startup Inventive Core Integrations. Pvt. Ltd in Dept of Industrial Policy and Promotion, Govt of india.
- Ms. P. Hemalatha is runner up for Elocution held by ISKCON.
- Neha Bhatia (III CSE) NIIT Certification on JAVA
- Indian Air Force project Database Duplicate Erasing completed by Sruthi, Srinivas, Varun (IV CSE)
- Indian Air Force project Web Portal Design completed by Vivek, Karthik, Sameer, Subham Singh (IV CSE)
- Mr. Anurag Gautam student of CMRCET (IV ECE) has Participated in international level pistol shooting at Melbourne, Australia
- B. Karthik (IV CSE) conducted 2-week workshop in SRM university, chennai on Cyber Security
- P. Prathap singh and his team participated in World Congress on Traditional Medicine conducted by a panel of National and International Specialists in Traditional Medicines
- Mr. Manoj from first year, of CSE department, has bagged the first place in the Indian National kickboxing championship in the under 18 category. He's been awarded with a gold medal by Anand Balaji, president of AP kickboxing ASSOCIATION

- B. Karthik (IV CSE) has successfully completed all requirements and criteria for certified Ethical Hacker certification through examination administered by EC-Council.

- Anurag Gautam (IV ECE) secured gold medal in center fire pistol shoot 25 mtrs & silver medal in standard pistol at National championship, Chennai

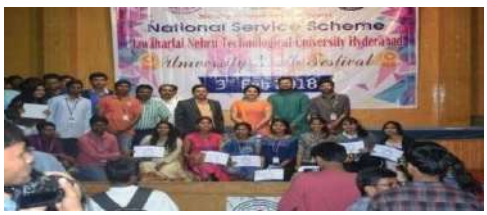
- AICTE-CII: TWO student (Adithya Srinivas & Swaminathan Rohan Gupta) ideas of our Campus have been shortlisted among Top 25 Innovators (Southern Region)

- International Youth worker award won by Babu Tapetla (IV ECE) at India Srilanka Youth Exchange Program

- K. Sairam, D. Joseph Meghanath and S. Surya Theja reddy (III CSE) were Anti coding winners conducted at Bits Pilani, Rajasthan

- B. Prudvi Naik of CSE III year Participated in Clay Modeling competition organized by IIT BHU, Varanasi and won a merit certificate by securing 2nd position

- The annual NSS youth festival, held by JNTUH, saw huge participation from many under graduate colleges this year. From the plethora of categories, Our College managed to bag three gold medals in different events

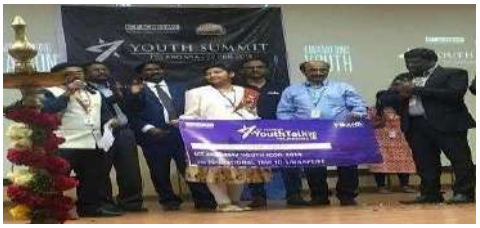


- K.B Rohith (II MECH), bagged the first place in the patriotic poem event. Shweta Mahavadi, from third year, ECE department won the first prize in essay writing competition in the NSS youth festival.
- K. Deepika and her team (III CSE) Won 1st prize in category of Group folk dance

- K. Deepika (III CSE) got selected in the JNTUH team for the State Level Youth festival organised by State NSS cell, Higher education department, Government of Telangana. The JNTUH team won the dance competition that was held at Kakatiya University, Warangal.

- Swetha (III ECE) won consolation prize in Category of ESSAY WRITING representing (JNTUH) at State Level Youth Festival (Kakatiya University)

- The Youth Icon of Telangana, Sadaf Maryam (I MECH), who talked her way to the Gold, in the recently concluded ICT Youth talk- Telangana. She now gets to go to Singapore on an educational trip sponsored by ICT.



- Azhar Talha syed (III CSE) and K. Madhusudan Chowdari (III CSE) from CMRCET got 9th and 15th rank in Hyderabad Best Coder Contest, respectively. Two of the 15 Hyderabad's best coders are from CMRCET. Jaikrishna Goud (I CSE) was also among the top 80 finalists and came 6th in first year category.

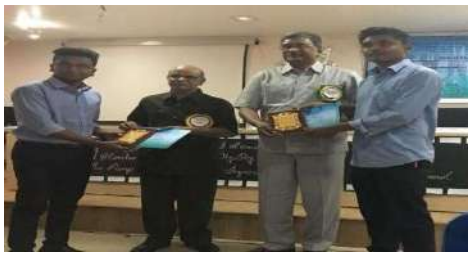
- In the NASA space apps challenge conducted in IARE college of Engineering, our college teams won the second, third and fourth positions. 3rd year ECE students won the second prize and 1st year CSE team (K. Chaithanya and members) bagged the third prize at the NASA Space apps challenge.


- Ms. M. Apoorva (IIICSE) got "Best Participant CSI Pune Chapter's Joshi Award" with Rupees 5000 cash prize, for her project in grand finale round of IT olympiad in Pune . She got selected for summer research fellowship conducted by IISC Bengaluru. Her fellowship will be in IIT Ropar under a professor in this summer for 2 months with stipend of Rupees 12000 per month.

- E. Manisha and S. Sravani (MBA) won 2nd prize in MLRITM FEST held at Malla Reddy Institution of Technology and Management in category of ad- Wiser.

- G. Sai Srinivas (MBA) won 1st prize place in MLRITM FEST held at Malla Reddy Institution of Technology and Management in event of Stock Exchange.

- T. Praneeth Kumar Reddy & S. Charan Kumar Reddy won 1st prize in Medha Fest organized at Bhavans College in category of Finanace Event

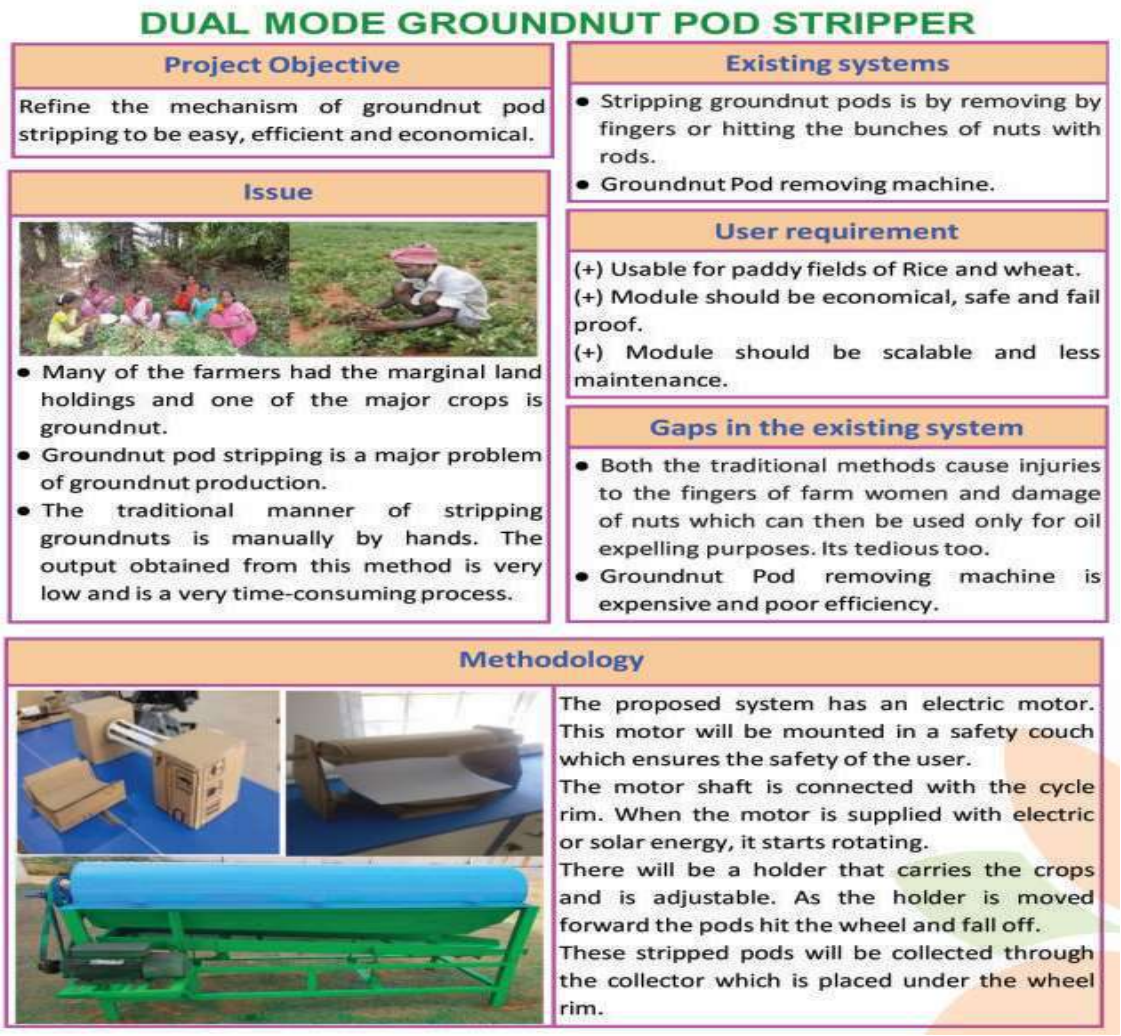


- Janardhan Reddy (MBA) won 1st prize in Medha Fest organized at Bhavans College in Activity of MOTOCROSS

H. Highlight selected start-ups established by students/faculties with mention of founder/cofounder name

Name of Idea/Innovation/ Startups	[Within (or) Outside] HEI	CIN (in case it is Startup)
Kodnov Software Solutions Pvt. Ltd.	Within	U93090TG2018PTC128300
Inventive Core Integrations Pvt. Ltd.	Within	U72900TG2018PTC125572

I. List if any break through Innovations / Technology Developed at the institute (2-3 technology with 2-3 lines about technology and innovation



AGRO SPRAYER

Project Objective

Refine the pesticide spraying system to be non hazardous, economical and efficient.

Existing systems

- Agriculture pesticide Power sprayer
- Agriculture pesticide Hand sprayer
- Mist Blower

Issue

Spraying pesticide is an preliminary operation performed by farmers.
Small scale farmers always prefer manually operated instrument instead of developed instruments which leads to health problems such as back pain and various diseases due to inhalation of pesticides.
Consumption time will be more for pesticide spraying, More work pressure to workers and health problems may cause while spraying that to be less area will be covered in one spray.

Gaps in the existing system

- Expensive.
- Need manual efforts and intervention.
- They are suitable for trees not for the plants like rice, wheat etc..

User requirement

(+) Should not be hazardous
(+) No need of manual intervention
(-) Economical (< Rs. 20,000/-)
(+) Portable (<10kg)

Methodology

This system improves overall efficiency by reducing spraying time and installation cost; moreover it will be reducing labor cost.
Agro sprayer is a device that is to be implemented to satisfy the requirements of farmer that is available for low cost and takes less time and it is reliable compared to other spraying equipments and it consumes less electric power

INVASIVE PLANT CUTTER

Project Objective

To cutdown the invasive plants and restricts their growth afterwards.

Existing systems

- Skid-Steer Loaders
- Four-Wheel Drive Tractors
- Bulldozers
- Brontosaurus, Whole Tree Harvesters and Chipping

Issue

- In agriculture, besides the main crop, invasive plants also grow. These invasive plants consume the water and several minerals from the earth.
- This leads to effect the main crop production. So these invasive plants should be removed and to be stopped

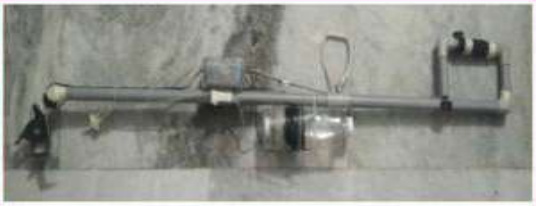
User requirement

(+) Economical (< Rs.10,000/-)
(+) Lightweight (<5kg)
(+) Handy
(+) Low Maintenance

Gaps in the existing system

- All mechanical equipment used in treating invasive plant infestation can transport seeds, roots, rhizomes, and spores to other sites. Equipment inspection and cleaning is essential to stop subsequent invasive plant spread
- All are expensive, bulk and not easily portable.

Methodology



This system contains an adjustable blade to cut the unwanted/invasive plants. It is designed with lightweight materials such as fiber and plastic. So it is portable and handy
Besides cutting, it sprays Organic Herbicides which can restricts the growth of the plants further.

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SMART CROP WATER MANAGEMENT

Project Objective

Implementation of Irrigation system for effective utilization of water resources.

Existing systems

- Drip Irrigation system
- Water pumping system

Issue

In Medchal-Malkajgiri district, agriculture is the biggest consumer of water, amounting to up to 70% of the total use.

In an attempt to avoid loss of productivity caused by water stress (under-irrigation), farmers spray more water than needed (over-irrigation) and as a result not only productivity is challenged but also water and energy are wasted.

User requirement

(+) Usable for paddy fields of Rice and wheat.
(+) Module should be economical, safe and fail proof
(+) Module should be scalable and less maintenance
(-) Run by renewable energy source

Gaps in the existing system

- Expensive.
- Need manual efforts and intervention.
- They are suitable for trees not for the plants like rice, wheat etc..

Methodology

Automated irrigation systems have been developed using sensors technology to efficiently utilize water for irrigation purpose. It makes the case for smart water management in order to guarantee efficient use of water for our target population.

It makes the case for smart water management in order to guarantee efficient use of water for our target population. The smart management of water for irrigation in agriculture is essentially required for increasing crop yield and decreasing costs, while at the same time contributing to the environmental sustainability.

LASER FENCING SYSTEM

Project Objective

To monitor and control the unauthorized entry of animals (Bandicoots and Hogs) in to the paddy fields

Existing systems

Electric fencing system.
Supersonic Pest Repellent Fleas, Rat, Spider, Cockroach & Ants Repelled Health Care System
J3 Ultrasonic Rat Repellent

Issue

Most of the farmers are suffering by the animals which can cause a significant damage to their paddy fields.

Bandicoots and elephants are the animals which can affect the growth of grains of Rice and Corn.

Farmers are losing around 10% of revenue due to Bandicoots and elephants.

While doing surveillance, farmers met with accidents, and in some cases it leads to death.

User requirements

(-)Animals (Bandicoots and Elephants) should not be allowed into Paddy fields
(+)Though they entered, they should be sent off the paddy field immediately.
(-)Cost should be under Rs. 20,000/- per acre.
(+)Module should be portable
(-) Zero maintenance.

Gaps in the existing system

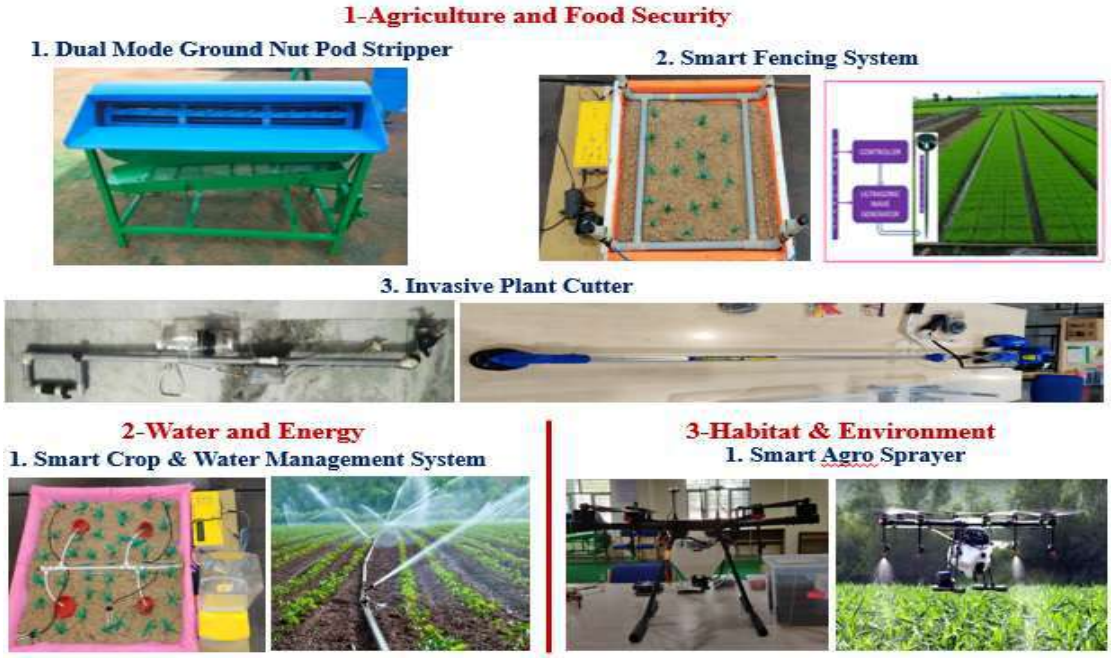
Designed for houses only. Not suitable for paddy fields
Expensive

Methodology

Laser fencing system is to protect agricultural plants during ripping stage.

The working principle of this system is for 10 or 20 meters toy laser and LDR will fix at height of half of one feet on surrounding of agricultural land.

When laser light not passed on LDR then immediately some blast like sound will come then those animals will run far away from that place.



J. Participation of IIC-institute in various programs of Central and Stage Govt. Highlighting specially for the schemes or programs

- ARIIA – From the Date of Inception onwards participated and Ranked 5th in Private Engineering Colleges List in ARIIA-2020.
- NISP Adoption status - Trained Faculty, Policy Formulation, Policy Implementation
  - National Innovation and Startup Policy has been adopted in the Institution, Faculty also have undergone for the training and Policy formulation completed and implemented after discussion with the Committee Members.
- Smart India Hackathon etc.
  - Grand Finale of Smart India Hackathon-Software Edition Hsted/Conducted & Organised Successively 4 Years, Devjam, Codeathon (Offline & Online)

CMR College of Engineering & Technology, One of the Nodal Centres proudly hosted the Grand Finale of 36 hour Smart India Hackathon (Software Edition) 2019 on 2nd and 3r March 2019.

CMR College of Engineering & Technology

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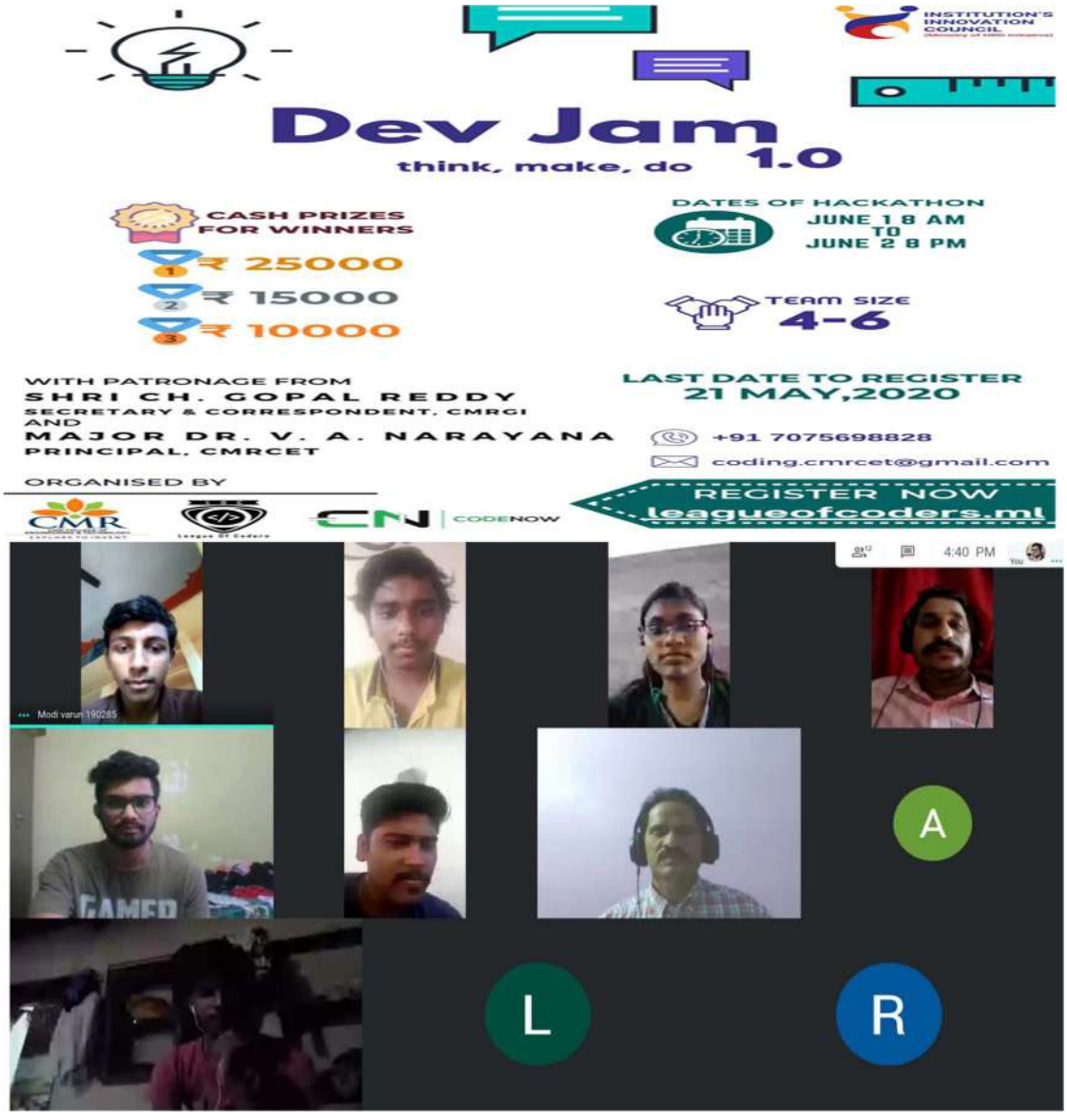
Kandlakoya, Medchal Road, Hyderabad -501401.

CMR College of Engineering & Technology was all braced up for the Grand Finale of Smart India Hackathon 2018 (Software Edition) held on March 30th and 31st, 2018.



Dev Jam 1.0 Online Hackathon

K. Detail of social media & Connections of IIC institute

Institutional Social Media Links:

www.twitter.com/cmrcet_official
m.facebook.com/www.cmrgroupofcolleges
www.instagram.com/cmrcet_official

Social Media Members of IIC Institute:

Sl. No.	Name	Email	Phone
1	N Manish Reddy	18h51a0575@cmrcet.ac.in	7075698828
2	K Sai Charan Reddy	18h51a0599@cmrcet.ac.in	9948087538
3	Harsh Amilpur	20H51A6681@cmrcet.ac.in	7659929659
4	Konda Sandeep	20H51A6683@cmrcet.ac.in	8978442360
5	V. Hanuma	18H51A05P7@cmrcet.ac.in	9618496724
6	D Varun Kumar	18H51A05F9@cmrcet.ac.in	9603914436
7	T Akhil Goud	18H51A05P4@cmrcet.ac.in	9985533008
8	P Nikhil Sai	18H51A05B2@cmrcet.ac.in	8985657088
9	Varun Reddy	18H51A05N9@cmrcet.ac.in	8185958811
10	R Tanuj	18H51A05P1@cmrcet.ac.in	9866867397
11	A Lalitha Soumya	18H51A05C1@cmrcet.ac.in	9550990467
12	Mohammed Nooruddin Pasha	18H51A05A5@cmrcet.ac.in	9133194891
13	Y Archana	19H51A05C1@cmrcet.ac.in	8328510095
14	Parinitha Pembarthi	19H51A05E3@cmrcet.ac.in	6300715109
15	S. Vamshi Krishna	18H51A0251@cmrcet.ac.in	9492665033
16	Harish Reddy Sonti	19H51A1259@cmrcet.ac.in	9553153520
17	Koushik PLN	18H51A05L4@cmrcet.ac.in	8121792755
18	G Vasavi	18H51A04A0@cmrcet.ac.in	9133609325
19	T Meghanath	18H51A04E7@cmrcet.ac.in	9059760305

L. Testimonials from IIC members and external about IIC institute and IIC of MoE's Innovation Cell

Sl. No.	Name of Member	Member Type (Teaching/ Non- teaching / External Expert)	Key Role/ Position assigned in IIC
1	Dr. V. A. Narayana	Teaching	Head of the Institute
2	Dr. K. Vijaya Kumar	Teaching	President of IIC
3	Dr. Merugu Suresh	Teaching	Vice President of IIC
4	Dr. Sarat Chandra Nayak	Teaching	Innovation Activity Coordinator
5	Dr. G. V Hari Prasad	Teaching	Internship Activity Coordinator
6	Mr. Abdul Subhani Shaik	Teaching	Start up Activity Coordinator
7	Mr. Raveendrababu P	Teaching	NIRF Coordinator
8	Mr. Anil Gunde	Teaching	ARIIA Coordinator
9	Mr. Siva Skandha S	Teaching	IPR Activity Coordinator
10	Ms. P. Rosy Matilda	Teaching	IPR Activity Coordinator
11	Mr. V. Narasimha	Teaching	Social Media Coordinator
12	Dr. S. Muthu Balaji	Teaching	Convener
13	Mr. I. Arun Kumar	External	CEO, P&P Co. Ltd., Hyd.
14	Mr. B. Sunil Kumar	External	COO, Cluster IT Solutions, Hyd
15	Mr. Vijay Kumar Gupta	External	MD, Kwality, Photonix, ECIL
16	Dr. V. Chandra Sekhar	External	MD, Fusion Technologies, Hyd.
17	Mr. M.J. Purohit	External	MD, Axiom Energy, Charlapally,
18	Dr. H. B. Singh	External	Professor, IIT BHU
19	Mr. S K Moinuddin	External	Alumni Entrepreneur
20	Mr. A. Tharun	External	Alumni Entrepreneur
21	Mr. N. Manish Reddy	Student	Startup Coordinator
22	Mr. K Sai Charan Reddy	Student	Internship Coordinator
23	Mr. S Laxmi Prasad	Student	IPR Coordinator
24	Mr. Vamshi Krishna J	Student	Innovation Coordinator
25	Mr. M. Meghanadh	Student	Social Media Coordinator

M. Images

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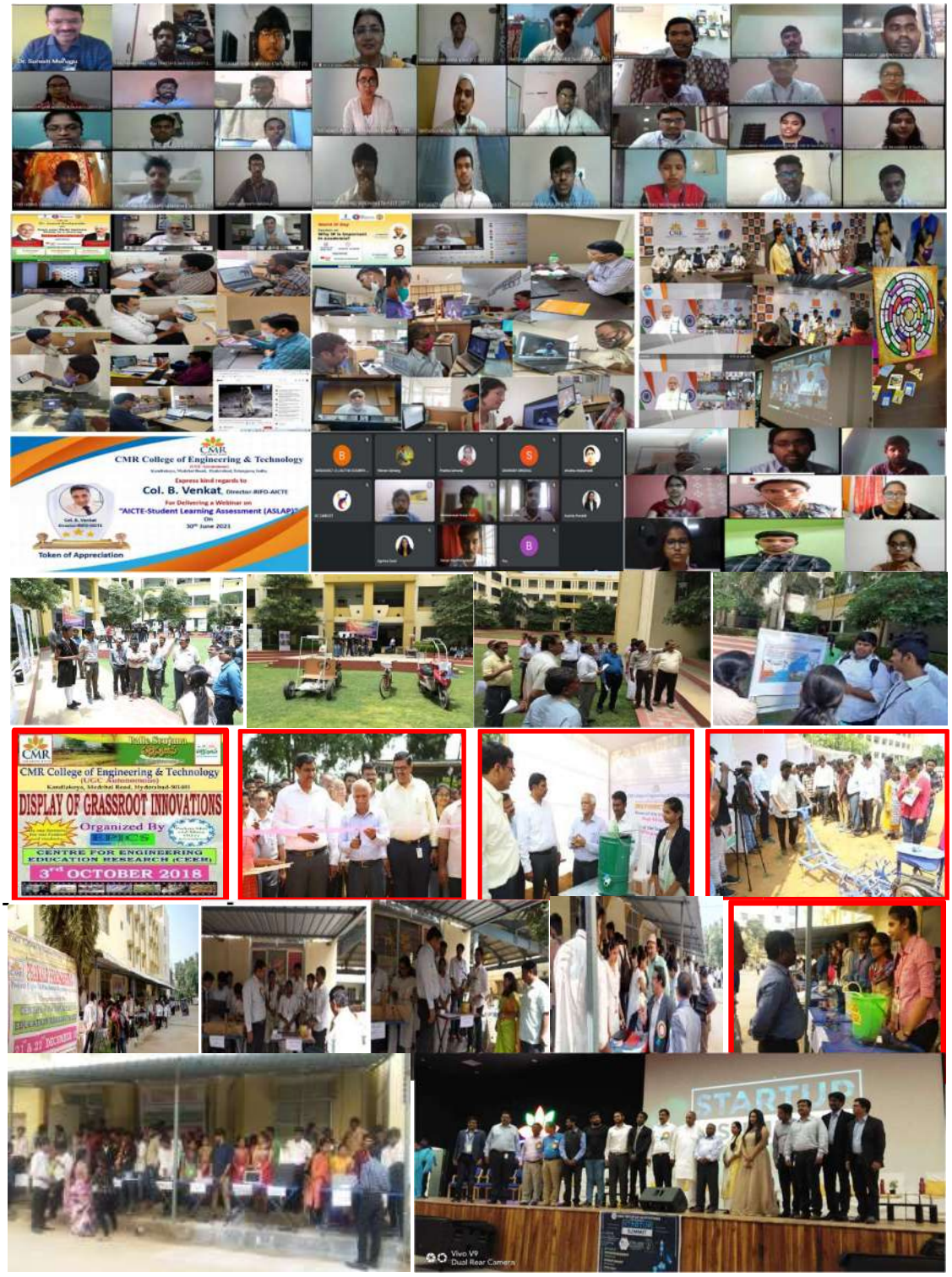

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Science, Technology & Innovation Hub
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Mobile: 9848276627