



## Annual Report 2020-21

### KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE: WARANGAL-15 (Institute ID- IC201811135)

#### A. About IIC Institute

**Vision:** To create a vibrant local innovation ecosystem for Scouting Ideas and Pre-incubation of Ideas that lead to start-ups and entrepreneurship

**Mission:**

1. To enable the institute to actively engage students, faculty and staff in innovation and entrepreneurship activities
2. To create space for collaboration, co-creation, business relationships and knowledge exchange
3. To conduct various innovation and entrepreneurship-related activities prescribed by Central MIC in time bound fashion.
4. Identify and reward innovations and share success stories.

- Journey of IIC established at the Institute :

IIC KITSW was established in 2018. Ever since its inception it is actively involved in conducting various events. Some of the prominent events are as following.

1. India First Leadership Talks Series- Calendar.
2. IIC KITSW organized **Ideathon 2K19** on 12.03.2019, in coordination with Mechanical Engineering Students Association (MESA). About 50 students participated and presented their innovative ideas.
3. S. Akilesh had participated in a supra event held at Noida on 15<sup>th</sup>-20<sup>th</sup> July 2019 organised by Society for Automobile Engineers (SAE).
4. T. Lavanith presented a paper on his innovative idea- LOOP HEAT PIPES at **NASA Thermal & Fluid Analysis Workshop (TFAWS) 2019** which was conducted at **NASA Langley research centre Virginia, USA** on 26-30<sup>th</sup> August 2019. He received a travel grant of Rs 1 lakh from AICTE.
5. Students were encouraged to participate in *Asian E-Bike Challenge* organized by M/s Imagine 2 Innovate, on 25<sup>th</sup> to 29<sup>th</sup> September 2019.
6. IIC KITSW, organized **Smart India Campus Hackathon (SIH)** on 22.01.2020 and 23.01.2020. About 250 students participated in the event. Eight best innovative ideas were shortlisted for National Smart India Hackathon.
7. IIC KITSW, had been sanctioned with **MSME Business Incubation Centre** by Ministry of MSME, Govt of India (File No: 3(10)/ Inc/7<sup>th</sup> PMAC/2020-21, dated 15.04.2021).

8. IIC KITSW, organized a Workshop on “**A RoadMap to Startup**” on 31.01.2021. in coordination with the Dept. of Computer Science & Engineering.
  9. IIC KITSW, organized one day Workshop on “**Intellectual Property Rights (IPR) and IP Management for Startup**” on 27.02.2021. **Mr. M. Radha Krishna Chavahan, Secretary, Metropolitan Legal Services Authority, Hyderabad** was the Chief Guest and resource person.
  10. **Sri D. Naveen Kumar**, Asst. Prof of CSE has undergone **Innovation Ambassador training** conducted by **MoE’s Innovation Cell and AICTE** during the period from 30<sup>th</sup> June to 30<sup>th</sup> July 2021.
  11. On the occasion of “**World Entrepreneurs Day**”, a webinar on “**Journey from Innovation to Entrepreneurship**” was conducted on 21.08.2021. **Mr. Srikanth Soni, Founder & Proprietor Srujan Workplace Innovations** was the guest speaker.
- Diversified representation in the IIC established at the institute from industry, Interdisciplinary & Departments/ Units etc.

Sr.No.	Name of Member	Member Type (Teaching/ Nonteaching/ External Expert)	Key Role/ Position assigned in IIC
1	Dr.P. Srikanth	Teaching, Professor, MED	Chairman, IIC
2	Dr. V. Chandra Shekhar Rao	Teaching, Assoc.Prof, CSE	President, IIC
3	Mr.N.C.Santosh	Teaching, Asst.Prof., CSE	Convenor, IIC Start-Up activity coordinator
4	Mr.Sridhar Reddy	External Expert Manging Director, Prathiraj Metal Masters Pvt.Ltd	Industry
5	Mr.V.Raju Reddy	Teaching, Asst.Prof., ECE	Innovation activity coordinator
6	Mr.Rakesh Yadav	Teaching Asst.Prof., EEE	Internship Coordinator
7	Dr.G.Ganesh Kumar	Teaching, Assoc.Prof., MED	IPR coordinator
8	Mr.P.Vijay Kumar	Teaching, Asst.Prof., CSE	Social Media Coordinator
9	Mr. K. Ajith	Teaching, Asst.Prof., EEE	ARIIA coordinator
10	Dr. M.Raju	Teaching, Assoc.Prof., EEE	NIRF coordinator
11	Sri. A. Dayananda Reddy	External member Founder, Vasantha Tool Crafts Pvt. Ltd.,	Alumni Entrepreneur
12	Sri. Srinivas Thumma	External member Founder Sumith Eletronics Pvt Ltd.,	Industry

- B. Brief mention of key functionaries at the IIC Institute
- President: Dr. V. Chandra Sekhar, Assoc. Prof of CSE
  - Vice President: --
  - Convenor: Mr. N. C. Santosh, Asst. Prof of CSE
- C. Portfolio/graphical/Tabular representation of Resource strength (human capital and Physical capital) of the IIC institution
- Total No. of IIC Members : 11
  - Total No. of IAs : 03
  - Total No. of faculty Mentors From Portal
  - Pre-Incubation Units, If any: 01
  - Incubation Units, If any: 01
  - IP Facilitation Unit, If any: 01

IPR policy is adopted and implemented in the institute. The institute has well established Research and Development (R&D) Cell headed by Dean and Associate Dean. Institute encourages the faculty and students to apply for the patents with suitable financial assistance and guidance. The institute has zero tolerance to plagiarism. All the mini projects and major projects are checked against plagiarism on **Turnitin Software**.

- D. Highlight Facilities, Infrastructure of Pre-Incubation & Incubation kind and Student bodies/clubs engaged in promotion of Innovation and Entrepreneurship in the campus.
- The institute has established **Centre for Innovation Incubation Research and Entrepreneurship (C-I<sup>2</sup>RE)** headed by Dr. Srikanth Pabba, Head, C-I<sup>2</sup>RE. It aims to encourage research, innovation and entrepreneurship to help the students to develop professional entrepreneurial ability and mindset to set up their own enterprises. The Centre encompasses 4 important avenues for the students to show case their innovative and creative abilities viz., **Institution's Innovation Council (IIC), MSME- Business incubator, Entrepreneurship Development Cell (EDC) and National Innovation Startup Policy (NISIP)**. The Centre shall develop the guiding framework to envision an educational system oriented towards start-ups and entrepreneurship opportunities for students, faculty and staff.

Institute has provided all the infrastructure in the form of Idea pitching rooms (4 ) Innovation Incubation seminar halls (2), Centre of excellences (6) to encourage the students and faculty to carry out their innovative projects. **Student Activity Centre (SAC) of the institute is active and has about 9 clubs** for the students to participate in extra-curricular and co-curricular activities. The "**Technical Club**" of SAC supports the C-I<sup>2</sup>RE in promotion and implementation of Innovation and Entrepreneurship in the campus.

- E. Highlight Achievements (Narrative/Graphical/tabular representation)
- Number and Different types of I&E and IPR activities Conducted - 09
  - No. of student's & faculty ideas generated - 32
  - No. of student's & faculty Innovation/prototypes developed - 03
  - No. of IPs generated, published and granted - 09
  - No. of Student & Faculty Start-ups/Ventures established. - 00
  - Amount spent on promotion and awareness generation on Innovation Entrepreneurship in the campus - 00
  - Amount grant or fund supported to student & Faculty lead Innovations, start-ups and IPR - 1.04 Crore

- No. of Technology Transfer and Commercialisation happened - 00

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]

- 1) Md.Sharfuddin, Asst.Prof of CSE, received a fund of **Rs 40.43 lakhs** for his innovative project- **Automation of farming tools for smart farming using android Application (A gaming approach), from DST-SEED** under Young Scientist Scheme.
- 2) H.Manas Reddy(Team Delta1) has reached the finals in **Smart India Hackathon - 2020** conducted on 1<sup>st</sup>-3<sup>rd</sup> August 2020.
- 3) Ch.Shiva Reddy received financial assistance from the institute, for his innovative project -**“Real Time Automation of Electrical Appliances”**. This project is successfully implemented and tested in Block VI of the Institute.

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



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

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

- 1) IOT based technology was used in the innovative project - **“REAL TIME AUTOMATION OF ELECTRICAL APPLIANCES”** to operate various electrical appliances remotely.
- 2) The php, html, Bootstrap, Ajax, and Css. technologies were used in developing the **PLAGIARISM SOFTWARE USING STRING MATCHING ALGORITHM**. The objective of this project is to ensure zero plagiarism of the projects and mini-projects submitted by the students of the institute. It works as equivalent to any commercial software.
- 3) **EMERGENCY RESPONSIVE SYSTEM** project was developed using latest technologies like php, html, Bootstrap and Css. The objective of this project is to provide the information of nearby Hospitals and automatically the hospital will be notified about the emergency to make necessary arrangements by the time the patient is brought to their hospital.

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

- ARIIA - participation and Rank **-Participated in ARIIA 2020**
- NISP Adoption status - Trained Faculty, Policy Formulation, Policy Implementation

**Faculty was trained and institute is in the process implementation for the year 2021.**

- Smart India Hackathon etc. **- Conducted Smart India campus Hackathon 2020**  
on 22.01.2020 and 23.01.2020

K. Detail of Social Media & Connections of IIC institute

Social media	User Id
twitter	licKitsw
Youtube	IIC.KITSWGL@GMAIL.COM
Instagram	i2re_iic_kitsw

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

### Smart India Hackathon (SIH)-2020

Team Name: Team Delta\_1

**Problem Statement Number: NH447**



*Authenticating user while performing transaction at ATM/POS terminal securely*

**Faculty Mentor: K. Kishor Kumar, Assistant Professor, MED**

*The journey of SIH 2020 has helped our students to gain knowledge which they can utilize in day-to-day life. The students worked on the problem statement and came up with an idea and developed mobile app and cloud-based web portal to improve security while making transactions at atm/pos. It was a software task to write some code to improve encryption, terminate networking flaws and in the due process prevent any bugs such that any known or existing exploits cannot work.,*

*We thank organizers of Smart India Hackathon for conducting such a great event which is helping every participant in some or the other way. Deployment journey from January 2020 gave the students practical experience of software lifecycle starting from analysing the problem by going in the market with data collector to deploying the apps.*

**Team leader: Sumith Dommati**

**Organization : NCR Corporation (India) private limited.**



*Smart India Hackathon gave us new experience which we would cherish every moment of our life. We got a chance to work with the NCR corporation directly. We have tried to improve the authentication process at the ATM/ POS terminals on the grounds of UPI system, which is India's most ambitious and successful digitisation program. In the process of presenting the solution, our team became the best version of ourselves to learn the various methods of authentication. I think this is one of its kind experience every student must go through. We sincerely thank all the stakeholders of the Smart India hackathon for providing us the best experience, one could get*

*Testimonial – (Togaru Lavanith)*



*IIC played a very important role in fruition of the project presented at NASA's Thermal and Fluid Analysis Workshop 2019, Virginia, USA. The project at its core is about innovating loop heat pipe technology and ushering it into the modern age and IIC, KITSW is the hub for innovation. The faculty members were very supportive throughout the project and helped me iron out potential problems with the functionality. IIC has ensured I am provided with the necessary software and hardware for the completion of the project. The student community of IIC is very open – minded and they have helped me in setting a clear project timeline. I would like take this opportunity to thank Dr P. Srikanth, Chairman, IIC, for all his efforts, right from coordinating with engineering departments and research cell to the approval of my funding to the conference in the United States. I would also like to thank Sri Kishor Kumar, Faculty In- charge IIC, for guiding me in system design of the project. I am confident that IIC will be the hub for many more projects in the years to come.*

*Testimonial – (Naganathan Karthik)*



*The loop heat pipe wick design involved designing a product compatible with modern technologies of additive manufacturing and IIC has contributed a lot at every step. IIC has played a pivotal role in setting project goals and project milestones. My co – author and I had several discussions with the faculty and students of IIC and it gave us valuable insight in terms of innovative capability and scalability of the project as well as potential applications of the technology. IIC has coordinated with Mechanical Department and R&D cell and provided us with a very capable computer with design and simulation software without which our project would not have been completed. I would like to wholeheartedly thank Dr. P. Srikanth, Chairman, IIC, for his unwavering support and leadership that helped us cross the finish line. I would also like to thank Sri Kishor Kumar, Faculty In – charge, IIC for his insights in the structural design of the wick. I am very thankful to have such a kind and supportive community. I am certain that IIC, KITSW is going to be the center piece for the innovation in our college and mould students to be future innovators.*

M. Images

## India First Leadership Talks: Episode-1



The banner features a portrait of Shri Anand Mahindra on the left. To the right, logos for MHRD, MIC, AICTE, and Smart India Mission 2025 are displayed. The central text reads: **INDIA FIRST LEADERSHIP TALK SERIES**, **Tuesday, 08 January 2019, 02:00 PM**. Below this, it says: **Send Your Questions for Shri Anand Mahindra on [www.mic.gov.in/questions.html](http://www.mic.gov.in/questions.html) before 5th January 2019**. A 'Watch Live on' section lists: Facebook LIVE at [www.facebook.com/mhrds.innovationcell](http://www.facebook.com/mhrds.innovationcell), YouTube at [www.mic.gov.in/live.html](http://www.mic.gov.in/live.html), and Twitter handle [mhrd\\_innovation](https://twitter.com/mhrd_innovation). The background includes the Mahindra logo and a building image.





MHRD MIC

**INDIA FIRST LEADERSHIP TALK SERIES**  
Talk on: Planning for Career

Thursday, 24th January 2019, 11:30 AM

Watch Live on

SUN TV PRABHA TV #755  
SYAM TV #755  
TATA Sky TV #442  
airtel TV #596  
SUN TV #526  
DEN TV #297  
UN TV #473  
Aardray TV #473

f LIVE [www.facebook.com/mhrdInnovation](http://www.facebook.com/mhrdInnovation)

YouTube <https://www.youtube.com/mhrdInnovationcell>

ignou <http://ignouonline.ac.in/qyandarshan>

MHRD INNOVATION CELL [www.mic.gov.in/live.html](http://www.mic.gov.in/live.html)

mhrd\_innovation

**Dr. Anand Deshpande**  
Founder, Chairman & Managing Director  
Persistent Systems Ltd.

Episode 02 of “India First Leadership Talk Series”



IIC KITSW is witnessing episode-2 of Indian Leadership Talks

MHRD MIC

**INDIA FIRST LEADERSHIP TALK SERIES**  
Talk on: Art of Decision Making

Tuesday, 19 March 2019, 11:30 AM

Watch on

SUN TV PRABHA TV #755  
SYAM TV #755  
TATA Sky TV #442  
airtel TV #596  
SUN TV #526  
DEN TV #297  
UN TV #473  
Aardray TV #473

f LIVE [www.facebook.com/mhrdInnovation](http://www.facebook.com/mhrdInnovation)

YouTube <https://www.youtube.com/mhrdInnovationcell>

ignou <http://ignouonline.ac.in/qyandarshan>

MHRD INNOVATION CELL [www.mic.gov.in/live.html](http://www.mic.gov.in/live.html)

mhrd\_innovation

**Shri Ajit Doval,**  
National Security Advisor, Govt. of India

Episode 03 of “India First Leadership Talk Series”



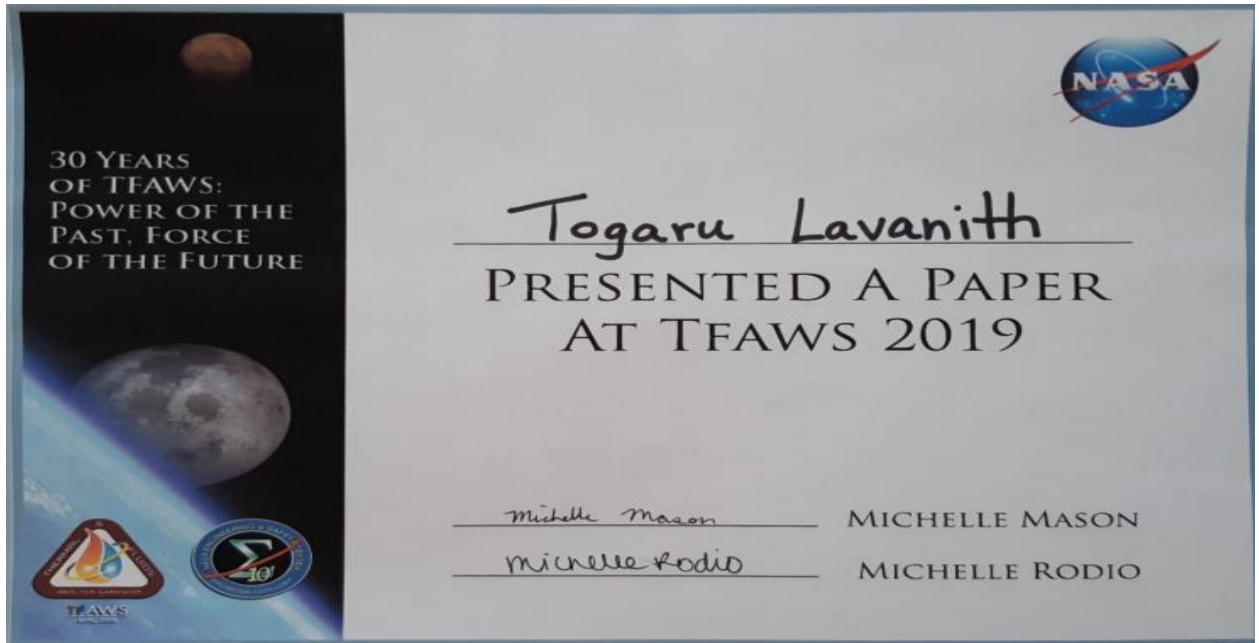
IIC KITSW is witnessing episode-3 of Indian Leadership Talks

# IDEATHON 2K19



POSTER AND PHOTOS OF IDEATHON

Ideathon is an innovative idea presentation event where students who have innovative ideas are encouraged to present their topic this Ideathon 2k19 was conducted in collaboration with MESA where around 50 students actively participated to show their innovative ideas.



T. Lavanith has presented a paper on LOOP HEAT PIPES at NASA Thermal & fluid analysis workshop (TFAWS) 2019 which was conducted at NASA Langley research centre Virginia, USA on 26-30th August 2019.



Mr. Sai Charan received “Best Student Award” at Asian E-Bike challenge organized by M/S Imagine 2 Innovate

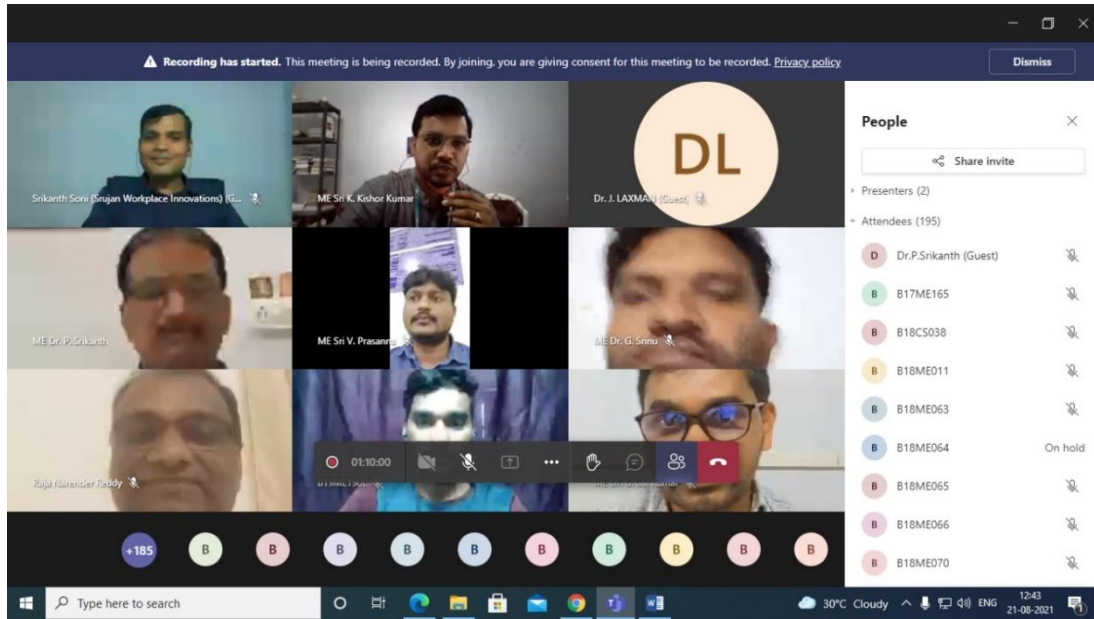


S. Akilesh has participated in a supra event where his innovative idea of keypad operated ignition system and a finger print unlock was well appreciated.

### MSME Awareness Programme



Principal, Dr. K. Ashoka Reddy inviting Sri. D. Chandra Sekhar garu Add., Advisor, MSME and Sri. K. C. Choudary garu, Asst. Director, Ni-MSME



## Webinar on “Journey from Innovation to Entrepreneurship”

N. Contact :

**1. Dr. V. Chandra Sekhar**  
President, IIC KITSW  
Cell: 9052452294

**2. Dr. Srikanth Pabba**  
Head Centre for I<sup>2</sup>RE  
Cell: 9849278378

**3. Dr. K. Ashoka Reddy**  
Principal, KITSW  
Cell: 9959204320