

PRAGATI ENGINEERING COLLEGE



(Approved by AICTE, Permanently Affiliated to JNTUK Kakinada & Accredited by NACC with "A" Grade) 1-378, ADB Road, Surampalem – 533 437, Near Peddapuram, E.G.Dist., A.P.

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Institution's Innovation Council

Annual Report 2020-21

The Institutions Innovation Council of Pragati Engineering College (IIC -PEC) is established in September 2020. The first quarterly meeting was conducted on 13 May 2021. The IIC members of Pragati Engineering College was approved and action plan to conduct various activities related Innovation, entrepreneurship, start-ups and IPR were prepared and discussed in the meeting.

The following activities are conducted during academic year 2020-21.

S.No	Activity	Quarter	Type	Remarks
1.	Future of STI – Science Technology and Innovation: Impacts on Education, Skills and work	Quarter III	Self-driven Activity	The Department of Information Technology in association with IIC - PEC has conducted Elocution on "Future of STI – Science Technology and Innovation: Impacts on Education, Skills and work" on account of "National Technology Day" on 11-5-2021. 21 Students have presented their ideas in the event.
2.	Significant Contribution of Engineers in the Field of Computer Technology	Quarter III	Self-driven Activity	The Department of CSE in collaboration with IIC-PEC conducted Elocution Event on the theme of "Significant Contribution of Engineers in the Field of Computer Technology" on 11-05-2021. 25 Students of B.Tech. I Year, II Year and III year have participated in this event. The students gave presentations on the important contributions made by various engineers in the field of computer technology which help the society to develop in all spheres of human life.

3.	Recent Technologies invented by Engineers and Scientists	Quarter III	Self-driven Activity	EEE Department Student Chapter, Institution of Engineers (India) in association with Institution's Innovation Council (IIC) of Pragati Engineering College celebrated National Technology Day on 11 th May 2021. On this Occasion Power point Presentation is conducted among the students on the topic of "Recent Technologies invented by Engineers and Scientists" through MS Teams App. This event was coordinated by Mrs. P. Vijaya Prasuna, Assoc. Prof, EEE department in online from 4PM to 5PM. 16 students were participated in this event.
4.	Workshop on "Innovation and Entrepreneurship as Career Opportunity" by IA	Quarter III	IIC calendar elective activity, but entered as Self- driven Activity	It is IIC calendar elective activity belongs to quarter 1. Due late registration in IIC, it was conducted during quarter III and entered as self- driven activity in IIC portal. The program was conducted on
				20.05.2021. There are 73 faculty members and 318 students participated in the program.
5.	Orientation session on National Innovation and Startup Policy (NISP)	Quarter II	IIC calendar elective activity, but entered as Self- driven Activity	The orientation session on National Innovation and Startup Policy (NISP) was scheduled on 20.05.2021 at 11.30AM through online. Totally 27 faculty members and 101 students attended the session.
6.	IIC Council formation	Quarter I	IIC calendar elective activity, but entered as Self- driven Activity	The Institution's Innovation Council (IIC) meeting is conducted on 13.5.2021 at 11.30AM through online. It is IIC driven mandate activity belongs to quarter 1 & quarter 2. Due late registration in IIC, it was conducted during quarter III and entered as self-driven activity in IIC portal. The program was conducted on 13.05.2021.

7.	National Educational Policy – 2020 for HEIs	Quarter III	IIC calendar elective activity, but entered as Self- driven Activity	It is IIC calendar mandate activity belongs to quarter 1. Due late registration in IIC, it was conducted during quarter III and entered as self-driven activity in IIC portal. The program was conducted on 29.05.2021 through online. There are 157 faculty members participated in the program.
8.	Session on "How to plan for Start-up and legal & Ethical Steps"	Quarter III	IIC calendar elective activity, but entered as Self- driven Activity	It is IIC calendar elective activity belongs to quarter 2. Due late registration in IIC, it was conducted during quarter III and entered as self-driven activity in IIC portal. The program was conducted on 31.05.2021 through online. Total 268 participants attended the program.
9.	A webinar on "Identifying Intellectual Property Component at the early stage of Innovation"	Quarter III	IIC calendar elective activity, but entered as Self- driven Activity	It is IIC calendar elective activity belongs to quarter 2. Due late registration in IIC, it was conducted during quarter III and entered as self-driven activity in IIC portal. The program was conducted on 07.06.2021 through online. Total 212 participants attended the program.
10.	Webinar "Design Thinking, Critical Thinking and Innovation Design"	Quarter IV	IIC calendar elective activity, but entered as Self- driven Activity	It is IIC calendar elective activity belongs to quarter 2. Due late registration in IIC, it was conducted during quarter III and entered as self- driven activity in IIC portal. The

11.	National Webinar on Research, Innovation and Ranking	Quarter IV	MIC driven Activity	program was conducted on 14.06.2021 through online. Total 199 participants attended the program. It is MIC driven activity and it was conducted during quarter 4. The program was conducted on 11.08.2021 and entered in quarter 4. Totally 52 members from Pragati Engineering College has participated in the program.
12.	Foundation of entrepreneurship	Quarter IV	MIC driven Activity	An invited talk with Start-up Founder/Co-Founder on "Foundation of Entrepreneurship", on 21th August 2021 through online. Totally 178 faculty and students took part in the webinar. Twenty five faculty members and 143 students from Pragati Engineering College, 10 participants from other institutions have attended the webinar.

• Diversified representation in the IIC established at the institute from industry, Interdisciplinary & Departments/ Units etc.

NA

A. Brief mention of key functionaries at the IIC Institute

IIC Members:

1. Dr.S.Sambhu Prasad - President 2. Shri M.Srinivas - Member/Expert from nearby Industry, (Managing Director, Sri Lalitha Enterprises Industries Private Limited) - Member/Startup / Alumni entrepreneur 3. Mr.Sesha Sai (Director, Imagtorel Technologies PVT LTD) 4. Mr. S. Vamsi Kiran - Vice President 5. Dr.G.Naresh - NIRF Coordinator 6. Dr.Subodh Panda - Convenor 7. Dr.R.Dharmalingam - ARIIA Coordinator 8. Mr.B.Rajesh Kumar - Member/Patent Expert

9. Mr.K.Chandrasekhar - Start-up activity coordinator
 10. Mr.Ch.Satish - IPR activity coordinator

11. Mr.B.Ratan Kumar - Innovation activity coordinator

12. Mr. B Bharath Kumar - Internship coordinator

13. MsT.Durga - Social Media Coordinator

14. Mr.G.Satya Mohan Chowdary - Member

15. Mr. A Raviteja - Member

16. Mr.G.Venkata Ratnam - Member

17. Mr. P.Ram Mohan Rao - Member

18. Mr. A.Surya Narayana Rao - Member

Student Members:

1. Mohammad Khamruddin Javeed, EEE - Innovation activity coordinator

2. P.Krishna Swamy, EEE - Innovation activity coordinator

3. Gollapalli Aravind, ME - Internship coordinator

4. Kotikalpudi Sravan Kumar - Internship coordinator

5. Pullipudi Pardhasaradhi Gupta, ECE - IPR activity coordinator

6. Vedula Narayana, ECE - IPR activity coordinator

7. N.Abhinandan Varma, CSE - Start-up activity coordinator

8. M.Krishna Rohit, CSE - Social Media Coordinator

9. J Parameswari, IT - Member

10. P.Sai Mounica, IT - Member

11. Mohammad Shamima Khatun - Member

12. Sai Satya Teja - Member

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

Total No. of IIC Members	Total No. of IAs	Total No. of faculty Mentors From Portal	Pre- incubation units, if any	Incubation Units, If any	IP Facilitation Unit, If any
30	07	13	55	Nil	Nil

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

Entrepreneurship Development Cell (EDC)

The program and responsibilities undergoing through Entrepreneurship Development Cell of Pragati Engineering College is to create an environment for self-employment and entrepreneurship development through formal and non-formal programmes, to promote employment opportunities, to create an entrepreneurial eco-system in institute where students will get motivated to take up entrepreneurship over job, facilitating students for campus companies and organizing motivational and inspirational talks from successful Entrepreneurs. The following subjects are being offered in the regular curriculum to promote entrepreneurship culture among the students.

- 1. Entrepreneurship
- 2. Intellectual Property Rights
- 3. Managerial Economics and Finance

Industry-Institute interface unit/centre

To enhance industry – institute interaction, 13 MoU's have been signed with government and private organisations, industries and academic institutions. The details of MoU's are given below.

S.No	MoU/Collaboration with	Date of Collaboration	Period of Validity
1.	Tata Consultancy Services (renewed for Third time)	09-Sep-12	Extended till 31 March 2021
2.	Confederation of Indian Industry (CII)	01 – Jan-16	Collaboration is extended year by year, subject to satisfactory performance. Valid till Jan 2022
3.	TCS iON	20-June-12	Renewed for another 3 years
4.	Wipro TalentNext	10-Jul-20	2 Years
5.	UiPath	26-Jun-20	2 years
6.	Cisco	07-Jan-21	2 years
7.	Palo Alto Networks	03-Feb-21	2 years
8.	Red Hat Academy	11-Feb-21	2 year
9.	Microchip	05-Jan-21	2 years
10.	Celonis	15-Jun-21	1 year
11.	Andhra Pradesh State Skill Devlopment Corporation (APSSDC-SIEMENS Project)	01-Mar-17	10 years
12.	Andhra Pradesh State Skill Devlopment Corporation (Chief Minister's Skill Excellence Center)	18-Nov-18	03 years

	GC German Center fo	•	
	Engineering and Managemen		
13.	Studies	15-Feb-19	03 years
13.	and European Center for	13-1-60-19	03 years
	Mechatronics APS GmbH		
	Aachen		

Pre-Incubation Units

S.No	Name of Centre	Type of Facility
1.	Research centre - Mechanical Engineering	Centre of
2.	Project lab - Mechanical	Pre-incubation
3.	Machine tools & Metrology lab	Pre-incubation
4.	Production Technology lab	Pre-incubation
5.	Instrumentation & Control Systems lab	Pre-incubation
6.	Metallurgy and Materaial Testing lab	Pre-incubation
7.	Mechanics of Solids lab	Pre-incubation
8.	CAD/CFD lab	Pre-incubation
9.	Engineering Workshop	Pre-incubation
10.	CNC lab	Pre-incubation
11.	Theory of Machines lab	Pre-incubation
12.	CAD Lab	Pre-incubation
13.	Mechatronics lab	Pre-incubation
14.	APSSDC - R& AC lab	Pre-incubation
15.	APSSDC - Siemens welding lab	Pre-incubation
16.	APSSDC - CNC Siemens lab	Pre-incubation
17.	APSSDC - Dassault 3D Experience LAB	Pre-incubation
18.	Applied Robot Control	Robotics Training
19.	APSSDC Chief Ministers Skill Excellence Center	Pre-Incubation
20.	Electrical Machines Lab	Pre-incubation
21.	Networks Lab	Pre-incubation
22.	Electrical Measurements Lab	Pre-incubation
23.	Power Systems Lab	Pre-incubation
24.	Electronics Devices and circuits Lab	Pre-incubation
25.	Control Systems Lab	Pre-incubation
26.	Power Electronics Lab	Pre-incubation
27.	Simulation Lab Profile	Pre-incubation
28.	Power Converters & Drives Lab	Pre-incubation
29.	APSSDC - Siemens Electric Home lab	Pre-incubation
30.	Research centre - Electronics and Communication	Centre of Excellence
		Excellence

31.	Electronics Devices & Circuits Lab-1	Pre-incubation
32.	Electronics Devices & Circuits Lab-2	Pre-incubation
33.	IC PDC Lab-1	Pre-incubation
34.	IC PDC Lab-2	Pre-incubation
35.	Analog/Digital Communications Lab-1	Pre-incubation
36.	Analog/Digital Communications Lab-2	Pre-incubation
37.	Microwave Lab-1	Pre-incubation
38.	Microwave Lab-2	Pre-incubation
39.	Electronic Circuit Analysis Lab	Pre-incubation
40.	Digital Signal Processing Lab	Pre-incubation
41.	DSD & DICA Lab	Pre-incubation
42.	Microprocessors Lab	Pre-incubation
43.	VLSI Lab	Pre-incubation
44.	Surveying lab	Pre-incubation
45.	Strength of materials Lab	Pre-incubation
46.	Concrete Technology Lab	Pre-incubation
47.	Fluid Mechanics and hydraulic Machinery lab	Pre-incubation
48.	Geo-Technical Lab	Pre-incubation
49.	Transporataion Engineering Lab	Pre-incubation
50.	Environmental Engineering Lab	Pre-incubation
51.	Engineering Geology	Pre-incubation
52.	GIS & CAD Lab	Pre-incubation
53.	IT Computer Lab	Pre-Incubation
54.	IT Project Lab	Pre-Incubation
55.	Research & Development Lab - IT	Pre-Incubation

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

S.No.	Description	No. of activities completed
1.	Number and Different types of I&E and IPR activities Conducted	11
2.	No. of student's & faculty ideas generated	27
3.	No. of student's & faculty Innovation/prototypes developed	Nil
4.	No. of IPs generated, published and granted	12
5.	No. of Student & Faculty Start-ups/Ventures established	Nil
6.	Amount spent on promotion and awareness generation on Innovation Entrepreneurship in the campus	Rs. 25,000/-
7.	Amount grant or fund supported to student & Faculty lead Innovations, start-ups and IPR	Nil
8.	No. of Technology Transfer and Commercialisation happened	Nil

E. Highlight few best IIC Faculty/Student members and their achievements/ Rewarded for the innovations at different forum

Name of the faculty	Name of the organiser of the event/programme	Number of idea submitted	Number of students under his/her mentorship	Achievements, if any
Mrs D.Uma	Chatra Viswa Karma Award	1	3	One project shortlisted and it will be presented during the Award Distribution Ceremony of Chhatra Vishwakarma Awards 2020.
Dr.S.Subodh Panda	Microprocessor Challenges Innovation and Solution	1	2	Reached upto 2 nd round
Dr.S.Subodh Panda, Mr.Krishnya Chaitanya R Mrs. GRLM Tyarru	Canvas /Iucee/Oxyzen Enrichec Air	5	9	3 ideas entered in 2 nd round. 3 rd round under progress.
Mr P. Siva Satya Prasad Mr .K. Chandra Sekhar	Toycathon for Digital Edition	13	13	Participated.
Mr .K. Chandra Sekhar	Tech Terror	2	2	Participated.
Mr .K. Chandra Sekhar	Tech Avencher	5	5	Participated.

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

NA

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

NA

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

NA

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

S.No.	Participation in various programs of Central and Stage Govt.	Remarks
1.	ARIIA	Participated in ARIIA 2021 ranking and awaiting for result
2.	NISP Adoption status - Trained Faculty, Policy Formulation, Policy Implementation	 Dr.Subodh Panda and Dr.R.Dharmalingam has attended training session on policy formuation. Policy formulation completed. Policy implementation is under process.

J. Detail of Social media & Connections of IIC institute

Facebook: https://www.facebook.com/IIC-Pragati-Engineering-College-109731297959761

YouTube : https://www.youtube.com/channel/UCTPIYDI9sFybbllSdoOCpBQ

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

Testimonial from Dr.S.Sambhu Prasad, President IIC & Principal

I highly acknowledge the activities on going and plan on hand with a concrete vision of generating future entreneprenure as joining hand by PEC towards Nation building program. Some of the burning role of IIC-PEC which bring a confident on innovation and start up policy of PEC are

- Conduct various innovation and entrepreneurship-related activities prescribed by Central IIC and MIC in time bounded fashion
- Identify and reward innovations and share success stories
- Organize periodic interactions with entrepreneurs, investors, professionals and create a mentor pool for student innovators
- Network with peers and national entrepreneurship development organizations
- Participating Hackathons, idea competition, mini-challenges.

Testimonial from Mr. Sesha Sai, Director, Imagtorel Technologies PVT LTD.

- My association with IIC-PEC and being an entrepreneur, I proudly expecting the bright and eye catching outcome which definitely appreciable by state and nationwide. I heartily welcome the moto of its policy execution through the following road map.
- Students/Faculty associated with IIC are getting exclusive opportunity to participate in various Innovation related initiatives and competitions organized by MHRD/ reputed platform.
- Encourage all to organize and participate exciting Prizes/Certificates winning program.

- Open hand support by management on opportunity to nurture and prototype new ideas.
- Welcoming Industry Professionals to act as Mentor.

L. Images

