WARANGA

Minada

AICTE-CII: GOLD Category Institute

NAAC-'A' Grade Institute (CGPA: 3.21)

## **KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE**

Opp : Yerragattu Gutta, Hasanparthy (Mandal), WARANGAL - 506015, TELANGANA, INDIA

काकतीय प्रौद्योगिकी एवं विज्ञान संस्थान, वरंगल - ५०६०१५, तेलंगाना, भारत

కాకతీయ సాంకేతిక విజ్ఞాన శాస్త్ర విద్యాలయం, వరంగల్ - గం౬ం౧౫ తెలంగాణ, భారతదేశము

(An Autonomous Institute under Kakatiya University, Warangal)

Estd: 1980 (Approved by AICTE, New Delhi; Recognised by UGC under 2(f) & 12(B); Sponsored by EKASILA EDUCATION SOCIETY)

E-mail: principal@kitsw.ac.in

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### **RESEARCH & DEVELOPMENT CELL**

### Vision:

To establish an ecosystem that cultivates a passion for discovery, innovation, and problem-solving.

### Mission:

Fostering a culture of innovation, inquiry, and academic excellence.

### **Objectives / Functions:**

- Promote Research Excellence
- Interdisciplinary Collaboration •
- Student Involvement and Mentorship
- Industry Partnerships and Knowledge Transfer •
- **Ethical Research Practices** •
- Dissemination of Knowledge •
- Continuous Learning and Development •
- Community Engagement

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Through the pursuit of these mission objectives, the R&D cell at KITSW aspires to be a catalyst for positive change, contributing meaningfully to the advancement of knowledge, the development of individuals, and the betterment of the community and beyond.

Total Grants research funding received (in Lacs) by the institution and its faculties through 4. Government and non-government sources such as industry, corporate houses, international bodies for research project, endowment research chairs during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19	Total
59.59228	75.58764	40.95065	43.56857	70.46814	290.1673

Amount of seed money provided by the institution to its teachers for research year-wise during 5. the last five years

2022-23	2021-22	2020-21	2019-20	2018-19	Total
0	4.48	16.98	0	8.4094	29.8694

Number of research projects funded by government and nongovernment agencies during the 6. last five years.

2022-23	2021-22	2020-21	2019-20	2018-19	Total		
04	04	02	02	04	16		

#### Number of teachers recognised as research guides as in the latest completed academic year 7.

Research Centres offered by the Departments	CE, ME, CSE & EIE
Total No. of Research Supervisors	17
Total No. of Scholars	48
No. of Scholars Awarded	15
No. of Scholars (submitted Thesis)	01
No. of Scholars (ongoing)	32

8. Institution has created an ecosystem for innovations, Indian Knowledge System (IKS), including awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same are evident Response: The KITSW has created eco system for innovation and undertaking initiative for creation of transfer of knowledge to the community. It has established centre for Innovation, Incubation, Research & Entrepreneurship. It has established 5 different centres.

- 1. AICTE IDEA Lab
- 2. Institution Innovation Council (IIC)
- 3. MSME (Micro Small Medium Enterprise) Business Incubation
- 4. Entrepreneurship Development Cell (EDC)
- 5. National Innovation Start-up Policy (NISP)

The college has strengthened its research infrastructure by obtaining funds to create a conducive research environment and promote research works on campus. Specialized research equipment and Central research facilities were established.

**AICTE IDEA Lab AICTE** has launched a scheme for establishing AICTE-IDEA (Idea Development, Evaluation & Application) Lab in its approved institutions for encouraging students for application of Science, Technologies, Engineering and Mathematics (STEM) fundamentals towards enhanced hands-on experience and learning by doing. Under AICTE Idea Lab the institute was selected for establishing Lab equipments with the fund of Rs. 1.23 Cr. Advanced equipments were procured to strengthen and upgrade available facilities to conduct advanced research. AICTE IDEA Lab develops critical thinking and complex problem solving abilities to take up challenging tasks among the students of the institution.

**Institution Innovation Council (IIC):** To systematically foster the culture of Innovation among the students, IIC was established. IIC conducts competitions and workshops to encourage startups by students. Students are encouraged to participate in Hackathons/Club Activities.

**MSME (Micro Small Medium Enterprise)**: Business Incubation MSME (Micro Small Medium Enterprise) Business Incubation was setup to submit innovative ideas to funding agencies and to develop incubation ecosystem in-house and external incubates and startups.

**Entrepreneurship Development Cell (EDC)**: The institute has established Entrepreneurship Development Cell (EDC) to create an environment for self-employment and entrepreneurship development through formal and non-formal programmes on fulltime / part-time basis for final year students, alumni, educated unemployed and working professionals. To introduce the concept of entrepreneurship in curricula in degree and PG levels. EDC helps to develop management personnel at appropriate levels for the non-corporate and unorganized sectors like rural development and small-scale industry. Furthermore, EDC is utilized to create infrastructural facilities and technically trained manpower for the development of non-corporate and unorganized sectors. And it also promotes employment opportunities.

**National Innovation Start-up Policy (NISP):** The college has recognized host centre for NISP. Through NISP, human resources and incentive support for startups are encouraged. And also IP ownership rights for technologies development and transfer is done.

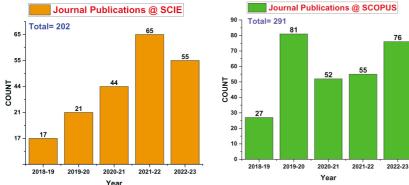
### 9. Code of ethics for research

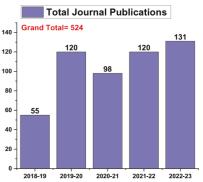
The Institution ensures the implementation of its stated Code of Ethics for research. The institution has a stated Code of Ethics for research the implementation of which is ensured through the following:

- 1. Inclusion of research ethics in the research methodology coursework
- 2. Presence of institutional Ethics committee (Animal, Chemical, Bio-ethics etc.)
- 3. Plagiarism check through software
- 4. Research Advisory Committee

# 10. Number of research papers published per teacher in the Journals as notified on UGC CARE list during the last five years

Year	SCIE	SCOPUS	UGC	TOTAL
2022-23	55	76	-	131
2021-22	65	55	-	120
2020-21	44	52	2	98
2019-20	21	81	18	120
2018-19	17	27	11	55
Total	202	291	31	524





COUNT

					Y	ear											Year											Y	ear					
Year		CE		1	ME		1	EIE		E	ECE		I	EEE			IT		c	SE		С	SN			PS		Μ	I&H		ľ	ИВА		
rear	sc	SP	U	sc	SP	U	sc	SP	U	sc	SP	U	sc	SP	U	sc	SP	U	sc	S P	U	sc	SP	U	sc	SP	U	sc	SP	U	sc	SP	U	Total
2022- 23	1	16	-	12	8	-	5	4	-	10	15	-	3	5	-	1	6	-	2	8	-	16	7	-	5	3	-	0	3	-	0	1	-	131
2021- 22	4	10	-	20	10	-	3	5	-	8	3	-	5	8	-	1	1	-	6	1	-	5	6	-	13	8	-	-	1	-	-	2	-	120
2020- 21	10	13	2	14	10	-	-	-	-	7	4	-	6	5	-	-	1	-	3	5	-	-	-	-	4	12	-	-	-	-	-	2	-	98
2019- 20	1	19	17	4	8	-	-	1	-	5	18	-	2	-	-	1	8	-	4	12	-	-	-	-	4	6	1	-	6	-	-	3	-	120
2018- 19	-	4	11	9	-	-	-	3	-	3	3	-	-	3	-	-	3	-	4	1	-	-	-	-	-	8	-	-	1	-	1	1	-	55
Total	16	62	30	59	36	0	8	13	0	33	43	0	16	21	0	3	19	0	19	27	0	21	13	0	26	37	1	0	11	0	1	9	0	524
Grand Total		108			95			21			76			37			22			46			34			64			11			10		524

### 11. Total Number of books and chapters in edited volumes published during the last five years

S.No.	Year	No. of books and chapters in edited
		volumes published
1.	2022-23	51
2.	2021-22	117
3.	2020-21	156
4.	2019-20	34
5.	2018-19	51
6.	Total	409

12. Bibliometrics of the publications during the last five years based on average Citation index in Scopus/ Web of Science

Institute	Scopus	WoS
Publications	565	254
Citations	2957	1595

13. Bibliometrics of the publications during the last five years based on Scopus/ Web of Science - h-index of the Institution

Institute	Scopus	WoS
H-INDEX	25	19

### 14. Faculty Research Projects

Year	No. of Projects	Amount (Lakh)
2023 - 24	02	24.00
2022 - 23	01	14.00
2021 - 22	02	66.06
2020 - 21	04	20.66
2019 - 20	05	76.98
2018 - 19	05	20.00
2017 - 18	03	46.75
Total	22	268.45

### Submitted Projects (2022-23)

		•
Total	Total cost	Funding
Projects	(Rs. in crore)	Agencies
52	12.88	AICTE,
		SERB, DST

Reviewers to Journals	:	68
Books Authored	:	10
Book Chapters	:	40
Patents Granted	:	14
Patents Published	:	28

### Conference Proceedings (573)

Year	CE		M	Ξ	EII	Ξ	EC	Ε	EE	E	IT		CS	E	CS	Ν	PS		M	ĿН	M	3A
	Ν	IN	N	IN	Ν	IN	Ν	IN	N	IN	Ν	IN	N	IN	N	IN	Ν	IN	N	IN	Ν	IN
2022-23	-	18	-	43	-	1	-	30	-	2	-	12	-	11	-	6	-	-	-	3	-	-
2021-22	-	21	-	31	-	5	-	36	-	4	-	26	-	18	-	-	-	-	-	1	-	-
2020-21	-	10	-	12	-	3	-	33	2	7	-	8	-	17	-	-	8	12	1	5	-	-
2019-20	-	17	-	21	-	3	-	20	-	6	6	7	0	4	-	-	7	13	-	1	4	-
2018-19	-	6	-	21	-	4	-	19	3	7	2	2	-	4	-	-	9	-	-	-	1	-
Total	-	72	0	128	0	16	0	138	5	26	8	55	0	54	0	6	24	25	1	10	5	0
Grand	7	72	1	28	1	16	1	38	3	31	(	63	5	54		6	4	9	1	1		5
Total																						

### Seminars/Conferences/Workshops /Symposia organized : 148

### Seminars / Conferences/ Workshops / Symposia attended : 2727

Year	CE	ME	EIE	ECE	CSE	CSN	IT	EEE	PS	M&H	MBA	Year	CE	ME	EIE	EEE	CSE	CSN	IT	ECE	M&H	PS	MBA	Phy.
2022-23	3	1	-	8	1	1	1	2	-	-	-													Edn.
2021.22	2	1	4	10	1		2	1				2022-23	40	47	14	6	33	9	37	38	21	10	2	-
2021-22	3	1	4	12	1	-	3	1	-	-	-	2021-22	180	63	20	29	23	-	45	71	86	11	-	-
2020-21	6	3	3	4	4	-	5	4	5	3	-	2020.21	45	157	0	00	05		10	100	50	110	22	-
2010.20		4	4	4.5	4		0	-	4		4	2020-21	45	157	8	98	85	-	13	109	50	113	32	5
2019-20	6	1	1	17	4	-	8	7	1	-	1	2019-20	95	36	37	179	154	-	36	179	44	72	14	1
2018-19	7	1	1	2	0	-	6	4	2	-	-	2018-19	68	34	40	32	65	_	20	79	11	23	8	
		_			10			10	-		_	2010-17	00	54	40	52	05	-	20	1)	11	23	0	
Total	25	7	9	43	10	1	23	18	8	3	1	Total	428	337	119	344	360	9	151	476	212	229	56	6

Institute Achievements / Recognitions - Faculty Student Level Grants for Students : Sri Kavitha Nangunoori-Energy efficiency improvement on trucks and buses by deploying engine thermal management (Amount: 15L)-MSME.

Bathini Sriharshitha-Helmet based green signal activation at traffic signals (Amount: 15L)-MSME

Grants for Faculty : Dr. Md Sameer, ME Dept.- CO-PI- 2 projects sanctioned- Funded by IIT GUWAHATI TECHNOLOGY INNOVATION AND DEVELOPMENT FOUNDATION- 16L and 8L.

QIP Fellowship – Ph.D.	:	IISc, Bangalore - Sri B. Sai Laxman, Asst. Prof., CE (24.9.2020 to 30.7.2023)									
Other Fellowships	:	<ul> <li>Rajiv Gandhi National fellowship &amp; scholarship : Sri B.Hanmanthu, Asst. Prof., CSE for a period of 3 years from 2018-19</li> <li>DRDO &amp; CSIR Sponsored project : Dr. G.Sai Kumar, Asst. Prof., MED, (10.1.2013 to 9.1.2014)</li> </ul>									
Postdoctoral research abroad	:	<ul> <li>Dr. A.Madhukar Rao, Asst. Prof., EEE : Post doctoral program at University of Minnesota, USA</li> <li>Dr. P.Suresh Kumar, Asst. Prof. CSE : Post doctoral program at Florida Int. University, USA</li> <li>Dr. M.Santosh, Asst. Professor, EEE : Post doctoral program at University of North Carolina, USA</li> </ul>									
Masters abroad	:	<ul> <li>Sri K.Harish, Asst. Professor, EEE : Masters Program in Mechatronics &amp; Cyber Physical Systems in Germany</li> </ul>									
Reviewer of Text Book	:	Dr. V.Swathy, Asst. Professor, CSE – "Ansi C" by Balagurusamy, 8th ed.									