

FACULTY PROFILE

1. **Name** : Miranji Katta
2. **Designation** : Assistant Professor
3. **Department** : ECE
4. **Date of Joining** : 24.10.2011
5. **Nature of Employment:** Regular
6. **Date of Birth** : 07.07.1984
7. **Unique ID (AICTE FID)** : 1-718038481
8. **Email** : miranji.katta@sircrengg.ac.in
9. **Phone** : +91-96 52 330 263
10. **Address for communication:** D.NO: 3-329, KATTAVARI STREET,
VEERAVASARAM (MD&POST)- 534245
WEST GODAVARI DISTRICT,
ANDHRA PRADESH



11. Educational Qualifications:

Qualification	Institute	University/B oard	Specialization	Year of Passing	Division/ Class
Ph.D.	Pondicherry Engg. College	Pondicherry University	Bio-MEMS	Persuing	-
PG	Gudlavalleru Engg. College, Gudlavalleru	JNTUK	Embedded Systems	2011	Distinction
UG	Swarnanadhra College Of Engg. Narsapur	JNTUH	ECE	2007	First class
Inter/Diploma	Andhra Polytechnic, Kakinada	S.B.T.E.T	D.E.C.E	2003	First class
SSC	M.R.K ZPH School, Veeravasaram	SSC	-	1999	First class

12. Work Experience: 12 Years

Teaching: 11.3

Research:

Industry: 0.9 Year

Total: 12

Name of the Organization	Designation	Date From	Date To
Sir CRR college of Engg, Eluru	Assistant Professor	24.10.11	Till date
Novel Embedded Solutions Solutions, Hyderabad	Embedded Design Engineer	01.11.08	26.08.09
BIET, Bhimavaram	Assistant Professor	16.08.07	30.10.08

13. Courses taught:

S.No.	Name of the subject	UG/PG
1	Electronic devices and circuits	UG
2	Analog Electronic Circuits	
3	Switching theory and logic design	UG
4	Electromagnetic field theory and transmission lines	UG
5	Antennas and wave propagation	UG

6	Radar Engineering	UG
7	Television and Satellite Communication	UG
8	Microprocessors and Microcontrollers	UG
9	Electronic Measuring Instruments	UG
10	CPLD and FPGA Architecture and Applicatons	PG

14. Administrative Responsibilities:

S.No.	Description	College/ Department level
1	Member of R&D	Department
2	Member of EHC	Department
3	Counselleing Incharge	Department
4	Workshops and guset lectures organizer	Department
5	EDC Lab Incharge	Department

15. Research Guidance:

M.Tech.		Ph.D.	
Completed	Ongoing	Completed	Ongoing
12	1	-	-

16. Research Publications in Journals (National/International):

S. No	Author (s) Name	Title of the Research Paper	National / International	Name of the Journal	Month Yr. of Publication	Vol. No. Issue. No. Pages	Scopus /Web of Scinece/ others
1	Miranji Katta	Microcantile ver Geomtery Anyalysis for array sensor design	International	Materials today	2021-22	Doi:10.1016/j.m atpr.2021.09.071	Scopus
2	K.Miranji	Review on Novel – corona Virus: Defesive measures and Natural medicine to protect ourselves	International	ISSN 2692-5877 DOI: 10.46998/IJCMCR.2021.12.00028	2021-22	12 3 1-6	Scopus
3	K.Miranji Dr.R Sandana Lakshmi et.al	Simulation approach to design high sensitive NEMS based sensor for molecular Bio-Sensing Applications	International	Eurpoean Journal of Molecular and Clinical Medicine ISSN: 2515-8260	2020-21	8 3 1730-1738	Scopus

5	K.Miranji Dr R Sandanlaksh mi	Simultaneous tropical disease identification with PZT-5H piezoelectric material including molecular mass biosensor microcantilev er collection	Internation al	Sensing and Biosensing Research- Elsevier https://doi.org/10.1016/j.sbsr.2021.100413	2020-21	32 - 100413	WoS
6	K.Miranji , Satish Rapaka	A new segmentation method for non-ideal iris images using morphologic al reconstructio n FCM based on improved DSA	Internation al	Springer Nature Applied Sciences https://doi.org/10.1007/s42452-020-04110-1	2020-21	3 1 1-15	WoS
7	K. Miranji, AVN Reddy	Design and implementatio n of area Efficient hybrid ppa adder architecture	Internation al	Journal of Critical Reviews 2394-5125 Scopus	2019-20	7 18 2361-2367	Scopus
8	K.MIRANJI	A Preliminary Review on Novel Coronavirus Disease: COVID-19	Internation al	Coronavirus es ISSN (Print): 2666-7967 ISSN (Online): 2666-7975 DOI: 10.2174/2666 79670199920 0615155630 Scopus	2019-20	1 1 90-97	Scopus
9	K.MIRANJI	Geometrical Sensitivity Analysis of Bio-Nano Electro Mechanical Systems Using FEM Analysis For Disease Detection	Internation al	Biosci.Biote ch.Research Communica tion ESCI DOI: 10.13140/RG.2.2.30372.81282 Part of ISSN: 0974-6455 Part of ISSN: 2321-4007	2019-20	13 2 49-58	WoS

10	K.Miranji	Static and dynamic analysis of Carbon nano tube cantilever for NEMS based Applications	International	Jctn 1546-1955 DOI:10.1166/JCTN.2020.8862 Scopus	2019-20	17 5 2151-2156	Scopus
11	Nemalipuri pravallika, K.Miranji	Enhanced performance and speed of flip-flop using conditional boosting flip-flop technique	International	IJRAR UGC	2018-19	6 2 275-283	UGC
12	Miranji Katta et.al	Comparative Analysis for lead free piezo electric material for ultrasonic glucose sensing applications	International	Journal of advanced research in dynamical and control systems -Scopus	2018-19	11 2 1110-1115	Scopus
13	K.Miranji Dr R Sandana Lakshmi	A Technology Overview and Future scope of BioMEMS Tropical Disease Detection:Review	International	Journal of Engineering and Technology(UAE) -Scopus DOI: 10.14419/ijet.v7i3.12.16446	2018-19	7 12 648-651	Scopus
14	Anusha K, K.Miranji	IMPLEMENTATION OF RECONFIGURABLE CORDIC	International	Academic Social Research ISSN: 2456-2645 UGC Approved	2017-18	3 6 54-63	UGC
15	K.Miranji, D. Lakshmi	performance Enhancement using Carbon Nanotube CNTFET in digital circuit Designs	International	IJCRT ISSN: 2320-2882 UGC Approved	2017-18	5 4 1981-1984	UGC
16	P. Sri Ratna	Design of	International	IJMTST	2017-18	3	UGC

	Spandana, K. Radha, K. Miranji	CMOS based PLC Receiver		(2455- 37789)		10 138-144	
17	P. Gopala Swamy K. Miranji	Implementati on of Data Encoding and Decoding Architecture for Network on Chip	Internation al	IJECS (2347-2820)	2015	3 7 23-29	UGC
18	K. Durga Prasad K.Miranji	Extended security and power optimized NFC tag with flexible Architecture	Internation al	GJTE (2393-9923)	2015	2 4 188-194	UGC
19	P. Harisai K. Miranji	Electronic Blood	Internation al	ERL (2249-6513)	2015	6 1 --	others
20	K.Miranji P. Ravi kiran	Designing of low power VLSI Circuits Using Non- Clocked logic Style	Internation al	IJECT (2230-7109) UGC Approved	2014	5 3 149-152	UGC
21	K.Miranji V. surya narayana	Power Efficient Design of 4 Bit Asynchronou s Up Counter Using D Flip Flop	Internation al	IJECT (2230-7109) UGC Approved	2014	5 3 132-135	UGC
22	K.Yamini K.Miranji	Low Power Data Compression Algorithm For Wireless Sensor Networks Using VHDL	Internation al	IJECS (2319-7242)	2014	3 11 9067-9072	UGC
23	G. Manasa M Damodhar rao K.Miranji	Design and analysis of fast addition mechanism For integers using quaternary signed digit Number	Internation al	IJVES (2249 – 6556) UGC	2014	5 Article 09455 1216-1224	UGC

		system					
24	Syam kumar nagedla K. Miranji	Implementati on of High Speed-Low Power Truncation Error Tolerant Adder	International	IJEEE (2231-5284)	2013	3 2 38-43	Others
24	V. Surya narayana K.Miranji	Multi-degree smoother for low power testable Digital system design using BS-LFSR and scan-chain Ordering techniques	International	IJESS (2231-5969)	2013	3 2 97-104	Others

17. Research Papers in Conferences (National/International):

S No	Author (s) Name	Title of the Research Paper	National/International	Year of Publication	Name of the Conference	Pages (PP) Paper Id
1	Miranji Katta, Dakshayani Puvvula, T Lokesh Chandra Sa	Early Detection of Breast Cancer Using Machine Learning Techniques			National	16th - 17th JULY 2021 21
2	Miranji Katta, Chandrika Punnam, S Gopichand Raam Dat	Design and Development of IoT based Social Distance Alerting for COVID-19			National	16th - 17th JULY 2021 22
4	K.Miranji	Design and Development of density based Traffic light control system using IOT	International	26 th to 27 th April 2019	ICACT2 019	ICACT BE113 ISBN 978-93-87360-32-7
5	K.Miranji	Audio and text Transmission Using LI-FI Technology	International	26 th to 27 th April 2019	ICACT 2019	ICACT BE123 ISBN 978-93-87360-32-7
6	P. Gopalaswamy K.Miranji	Implementation of Data Encoding and Decoding Architecture for Network on Chip	International	1 st -2 nd May 2015	ICRTIE T-15	ICRTIE T-PID-226

7	G. Durga Prasad K.Miranji	Extended security and power optimized NFC tag with flexible Architecture	International	11 th April 2015	GJTR	PUNE GJTR - 023
8	K. Yamini K.Miranji	“Implementation of High precision data compression Algorithm using VHDL”	International	10 th an 11 th oct 2014	ICAEM 2014	RISE-IC-02647 Ongole
9	P. Ravi Kiran K.Miranji	“Design of low power 3-bit flash ADC using 90nm technology”	International	10 th an 11 th oct 2014	ICAEM 2014	RISE - IC-02667 Ongole
10	N. Syam Kumar K.Miranji	“Design and implementation of an enhanced fault tolerant baud rate synchronizer for high speed computations ”	International	10 th an 11 th oct 2014	ICAEM 2014	RISE-IC-02678 Ongole
11	Adam Khan K.Miranji	“Design And Implementation Of APB Bridge Based On AMBA AXI 4.0”	International	10 th an 11 th oct 2014	ICAEM 2014	RISE-IC-026
12	V Suryanarayana K.Miranji	“Multi-degree smoother for low power testable Digital system design using BS-LFSR and scan-chain Ordering techniques”	International	29 th Sept 2013	ICRTET -13	RTET-29sep13-010
13	N Syam Kumar K.Miranji	“A Novel design for High Speed-Low Power Truncation Error Tolerant Adder”	International	29 th Sept 2013	ICRTET -13	RTET-29sep13-009
14	N Syam Kumar K.Miranji	Implementation of High Speed-Low Power Truncation Error Tolerant Adder”	International	22 nd Sept, 2012.	ICCIEA -12	22SEP12-010
15	K.Miranji G.Vargil Vijay	“Implementation of pre- Computation Based content addressable memory”	International	8 th to 10 th July 2011	ICNEA C-2011	09Sep11-009
16	K.Miranji P. Ravi kiran	Designing of low Power VLSI Circuits Using Non-Clocked Logic Style	National	24 th & 25 th Jan 2014	NCRRE CE 2014	--
17	K.Miranji V.	Power Efficient Design of 4-Bit	National	24 th & 25 th Jan 2014	NCRRE CE 2014	--

	Suryanarayana	Asynchronous Up Counter using D Flip Flop				
18	K. Yamini K.Miranji	Design and Implementation of High Precision Data Compression Algorithm Using VHDL	National	11 th Oct 2014	NCCTE T 2014	--
19	P.Ravi Kiran K.Miranji	Design of Low Power 3 Bit flash ADC Using 90nm Technology	National	10 th Oct 2014	NCCTE T 2014	--
20	K. Nagarjuna K.Miranji	JPEG & Bit Plane image Compressed Image transmission Using Adaptive Wiener turbo systems	National	4 th & 5 th Jan 2012	RAISE 2012	--
21	Ch.Jaya K.Miranji	Design of a Wideband Semi-Fractal Square Patch Antenna for Ku-Band Applications	National	1 st & 2 nd July 2016	RAMA C 16	--

18. No of Books Published: Nil

S.No.	Author(s) Name	Title	Publisher	ISBN	Year of Publishing

19. Workshops/ FDPs/STTPs /etc., (Attended):

S No	Name of the workshop/ STTP	Place	Period	
			From	To
1	Lab view Hands on Training	SIR CRR COE	06.04.2019	09.04.2019
2	MSP 430 - Texas Instruments	SIR CRR COE	25.03.2019	-
3	Bludroid	SIR CRR COE	07.01.2019 08.01.2019	24.01.2019 25.02.2019
4	Training Program On C	SIR CRR COE	14.09.2018	15.09.2018
5	Introduction to Embedded Systems	SIR CRR COE	16.10.2017	24.10.2017
6	ARM and Raspberry Pi	SIR CRR COE	09.10.2017	12.10.2017
7	Arduino programming and Sensor Interfacing	SIR CRR COE	21.09.2017	22.09.2017
			05.10.2017	6.10.2017
			13.10.2017	14.10.2017
8	Arduino programming and Sensor Interfacing	SIR CRR COE	18.01.2017	19.01.2017
			30.01.2017	31.01.2017
			08.02.2017	09.02.2017
9	Advanced analog and digital circuit	SIR CRR COE	16.02.2017	17.02.2017

	design		21.02.2017	23.02.2017
10	3D Modeling of Electromagnetic systems using ANSYS RF-Tools	SIR CRR COE	09.09.2016	10.09.2016
11	PLC Programming and SCADA Applications	SIR CRR COE	26.01.2015	03.03.2015
12	PCB Designing and Testing	SIR CRR COE	05.02.2015	06.02.2015
			09.02.2015	12.02.2015

20. Workshops/ FDPs/STTPs/ etc., (Attended):

S.No	Name of the workshop/ STTP	Place	Period	
			From	To
1	Digital Communications and signal processing concepts-Tools-Solutions	VIIT,Vizag	12.09.2008	13.09.2008
2	Embedded Microchip technology	GEC,Gudlavalleru	04.03.2010	05.03.2010
3	Mentor graphics(Front End and Back End) and Xilinx tools	GEC,Gudlavalleru	13.09.2010	17.09.2010
4	Analog Electronic Circuits	IIT Kharagpur &GVIT	04.06.2013	14.06.2013
5	Signals and systems	IIT Kharagpur&GVIT	02.01.2014	12.01.2014
6	Replication of Electromagnetic fields using ANSOFT	VIT,Bhimavaram	11.02.2014	12.02.2014
7	PLC Programming and Applications”	Sir C R Reddy College of Engineering	01.03.2015	--
8	Engineering Education and research	National Instruments, Vijayawada	29.12.2015	--
9	IC design flow using Mentor graphics and EDA tools”	Sir C R Reddy College of Engineering-Trident Technologies	5.08.2016	06.08.2016
10	3D Modelling of Electromagnetic Systems Using ANSYS-RF Tools	Sir C R Reddy College of Engineering-Innovent technologies	09.09.2016	10.09.2016
11	Engineering Education and research	National Instruments, Vijayawada	26.09. 2017	--
12	National Workshop on Space Dynamics	Sir C R Reddy Autonomous College, Eluru	04.10.2017	06.10.2017
13	FPGA Based System Design Using Verilog	Sir C R Reddy College of Engg, Eluru	06.10.2017	07.10.2017
14	Instructional Design and Delivery systems	NITTR, Chennai.	04.12.2017	09.12.2017
15	Micro sensor Design	Andhra University Vishakhapatnam	22.03.2018	24.03.2018

16	MEMS Familiarization Program(NSNST-2018) INUP	Iisc Bangolre	20.06.2018	22.06.2018
17	Biology for Engineers(QIP)	IIT Bombay Mumbai	04.06.2018	08.06.2018
18	Training Program on IOT	Thingtronics	11.10.2018	13.10.2018
19	Biomedical Nanotechnology	NPTEL-AICTE	Aug-Sep 2018	4weeks(1/2 Week FDP)
20	Fabrication techniques for MEMS based sensor:clinical presepective	NPTEL-AICTE	Jul – Oct 2018	8 Weeks(1 week FDP)
21	APS Gmbh advanced robotics for Mechtronics and industrial robotics	Aachen University, Germany, APSSDC	Dec 9 th to 19 th 2018	10 days
22	Sensors and actuators	IISC, Bangalore	06.05.2019 to 10.05.2019	One week
23	Pharma and biotech research	IITB, Mumbai	20.05.2019 to 24.05.2019	One week
24	BioMEMS and Micro systems	NPTEL – AICTE	Feb – Apr2019	8 Weeks (1 week FDP)
25	ARC 2.0	VIT-AP	5 th to 12 th August 2019	One week
26	Andriod App Development Online training Program –	Edagate Technologies	23 rd &24 th April 2020	Two days
27	FDP on SCI lab	IITB	29.04.2020 to 03.05.2020	One Week
28	FDP on OBE-NBA Process	NSRIT	15 th to 19 th May 2020	One Week
29	Effective EfficientOnline Teachinh in the age of Corona, A Hands on Workshop-	IITB	24.05.2020	One Day
30	Innovation , ipr, enetprenuer, startup	MHRD	28.04.2020 to 22.05.2020	One Month
31	MATLAB MASTERS	Datateach Ai	8.6.2020 to 19.06.2020	2 Weeks
32	Fundamentals of Semiconductors –	NPTEL-SWAYAM	Jan –Apr 2020	12 Weeks

21. Sponsored Projects:

S.No.	Title	Sponsored by	Amount	Period	Ongoing/ Completed

22. Consultancy Projects:

S.No.	Title	Agency	Amount	Period	Ongoing/ Completed

23. No of Patents (Filed/Granted):

S.No.	Title	Application Number	Year	Filed/Granted/Published
1	An Electronic circuit based power consumption monitoring system- Elife	201941051669	20.12.2019	Filed & Published
2	An IOT based health monitoring system	202041042417	09.10.2020	Filed & Published
3	Multimode Real time Data Transmission System for Aqua culture water monitoring – Fishpond automation with all possible communication to farmers	202041046392	06.11.2020	Filed & Published
4	Portable and wearable alerting and disease preventing device - Colert	202041048634	13.11.2020	Filed & Published
5	System and method for monitoring insulating oil quality in transformer	202141010932	15.03.2021	Filed & Published
6	Masthyavardhini-Design	344264-001	2021	Filed
7	Sanitizer Free Corona Disinfector-Design – Spikes Distructor	CBR_342262	2021	Filed
8	Wearable Personnel monitoring Emergency Responsive Device	20214106628	23.04.2021	Filed & Published
9	A Vehicle Simulation tool by providng WSN inside the vehicle with AI&ML based Interfaces	202141024465	01.06.2021	Filed & Published Cpyrights Granted
10	A Novel System Based Random sample Consensus(RANSAC) for IRIS Recgonition in non-Ideal Imaging Conditions	202141023786	28.05.2021	Filed & Published

24. Awards/HonoursReceived:

S.No.	Award Name	Awarded by	Contribution	Date Received
1	Bharath Siksha Ratna Award	Economic Growth Foundation, Constitution Club Of India, New Delhi	For Social Activities and creating awareness of value added education to several schools	August 3 rd 2018
2	Appreciation Memento	Texas Instruments	for conducting state Wide Talent test on Power Buck Booster Design	March 7 th 2019
3	NPTEL Topper	NPTEL-IISC Bangalore	Fabrication of MEMS from IISC Bangalore,	Aug to sep 2018

25. Professional Memberships:

S.No.	Name of the Professional Body	Membership No.	Membership Type
1	Institute of Electrical and Electronics Engineering (IEEE)	94242831	Annual
2	Institute of Engineers(IEI)	AM1638478	Life
3	Institute of Electronics and Telecommunication Engineering (IETE)	M500581	Life
4	International Association of Engineers(IAENG)	134038	Life

26. Membership in BOS/ Editorial Boards:

S.No.	Name of the University/ Journal	Member/ Editor/ Reviewer	Period
1	EDAS.info	Reviewer –id: 1161967	2017-18

27. Details of Personal Blogs/ Educational Youtube Channels/ e content (if any):

<https://youtube.com/playlist?list=PLUEnStKU07jLykVZv3rE5tYJ67E0BEwal>

28. Details of Innovative Design/ Development of Product or Model (if any):

- Developed low cost Fish pond automation device for Aquaculture, Collaboration with Fisheries Department of Government of Andhra Pradesh. Design patent filed- 344264-001

- Developed payload for ISRO titled “Measurement of progressive magnetic field shift measurement using Hall Sensor” in collaboration with Satellize, Exceed Space, Hyderabad in 2019.
- Developed Sanitizer free Corona disinfectant with sound waves – In house Development– Design patent filed-CBR No: 342262
- Developed “IOT based Pollution Monitoring with Customized MMD” – In house Development

29. Technology Transfer: Nil

30. Special Achievements (If any):

- UGC-NET Qualified in June 2012 Ref No: 56422 & Jan 2013 Ref No: 46278
- Got gold medal in National Karate Do Championship – 2013 organized by Shito Ryu International karate Do Academy on 15.12.2013(sparing)
- Got Gold medal National Karate –Do/All styles open championship -2010 organized by Shito Ryu International karate Do Academy on 28.11.2010(team Kata)
- Got Gold medal National Karate –Do/All styles open championship -2010 organized by Shito Ryu International karate Do Academy on 28.11.2010 (Weapon kata – stick)
- Got silver medal in 9th state invitational karate & kung-fu all styles championship 2010 organized by KEN-EI-MABUNI SHITO RYU KARATE School of Andhra Pradesh on 07.11.2010 (sparing)
- Got Gold medal in 2nd National Karate and Kung-fu all styles championship - 2009 organized by POWER KING BUDOKAN KARATE CLUB, INDIA on 20.09.2009(sparing)

31. Personal Details:

- (a) Name of the Father : K. Krishna Murthy
 (b) Name of the Mother : K. Lakshmi
 (c) Gender : Male
 (d) Marital Status : Married
 (e) Nationality : Indian
 (f) Passport No : H3260435

K. Murthy

Signature