Mr. K. Bapayya
Asst. Professor

Education Qualifications: M-Tech (PhD*)
Specialization: Digital Electronics and Communication Systems
Embedded and Image Processing

ADDRESS:
- C – Block -Room No 404

JNTUH ID: 1862-150409-113018

EMAIL:
kbapayya_ece@mgit.ac.in

DATE OF JOINING:
25-04-2018

EXPERIENCE - 16 Years
- Teaching - 16
- Research - 06
- Industry - 01
- Others –

SUMMARY:
- Publications - 07
- Conferences - 03
- Patents – 0
- Books – 0
- Honors/Awards - 9

EVENTS:
- Organized - 06
- Attended - 35

LET'S MEET ON SOCIAL:

Membership of Professional Bodies:
1. IETE, 2. ISTE

Responsibilities Held At Institution Level
1. R&D Consultancy Projects (active- 2 No.s)
2. Coordinator for Internal SIH-Hackathon 2019, 2020, 2022
3. Student Bus In-charge
4. Student Training Program for IoT & Embedded Systems
5. Anti-Ragging, Campus Monitoring duties
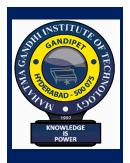
Responsibilities Held At Department Level
1. In-charge Project Laboratory
2. Student Guidance- in-house Mini/ Major project work
3. Extra Curricular Activity – IoT & Embedded Systems Training
4. Speaker for AICTE Sponsored FDP on Recent Trends in IoT Using Embedded Systems-Slot-1 & Slot-2 organized by Dept. of ECE, MGIT
5. Co- coordinator for ICASPACE conference- 2021
6. Coordinator for Project Expo in Microcosm since 2018

Publications:
International Journals: Seven (7) Papers
1. K. Bapayya, M. Srinivas, T. Sharath Chandra. "GPU based human detection for Video Surveillance Applications", IJEECS, ISSN2348- 117X Volume 6, Issue 7 July 2017
2. K. Bapayya, K. Sujitha, "RTSP Based Video Surveillance System Using IP Camera for Human Detection in OpenGL", (IJCSIT), Vol. 6(5), 2015, 4563-4567, October-2015
3. K. Bapayya, FPGA Implementation of DDC using Multiplier-Free Filter for MRI Receiver, IJERT Vol. 3 Issue 10, Oct-2014
4. Design of OFDM Modulator using IEEE 802.11a for SDR, IJAST, Vol.2, 2011.
5. FPGA Implementation of Multi-DDS system for MRI Transmitter, IJERT, Volume. 3, Issue.10 , October – 2014
6. FPGA Implementation of Efficient Viterbi-Decoder for Multi-Carrier Systems, IJMER,Vol.4, Issue 9, Sept. 2014 52
7. Design of Low Power Phase Locked Loop using Current Starved Voltage Controlled Oscillator, IJAERD, Volume 4, Issue 10, Oct - 2017, ISSN (P): 2348-6406

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National Journals : Four (4) Papers

1. D. Venkat Reddy, Ch. D. V. Paradesi Rao and E. G. Rajan "Multilevel Coding Approach to Fast Genomic Processing" CIIT journal of Research, vol 3, no.8 Sep-2011, pp 415-422.
2. D. Venkat Reddy, KVNM Prasad, K.Ramalingareddy "GENOMIC SIGNAL PROCESSING IN THE FRAMEWORK OF MVL" .IUP journal of research, vol IV No.3, july-2012,pp 45-63.
3. D. Venkat Reddy **"Design of High speed Digital Filters for DSP Applications"** Indian Journal of Advances in Electrical Engineering, Sep 2013.
4. D.Venkat Reddy, A.Murali" Integrating FPGAs with trigger circuitry core system insersions for observability in debugging process"Journal of Engineering and applied sciences Nov 2016.
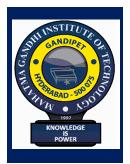
Conferences:
International: Seven (02) Papers

1. **GPU based human detection for Video Surveillance Applications**, 3rd International Conference on New Frontiers of Engineering, Science, Management and Humanities (ICNFESMH-2017), IETE, Sector 30-B,Chandigarh, 29 July 2017
2. **Implementation of Reed-Solomon coder and decoder using Raspberry Pi for image applications** , ICASPACE-Springer vol xx (Proceedings pending)-

National: Seven (03) Papers

1. **Implementation of RS & Viterbi Codes in FEH Chain**, 2-day National Conference on Emerging Trends in Signal Processing & Embedded Systems-2011 at GCE, Hyd.
2. **A Novel Scheme for Mobile Payment using RFID-enabled Smart SIM Card**, NC2010-SPCOM-10,NCDC-19,NCAE-10,SBE-10,TECHNO-10.
3. **RTSP based Human detection using OpenCV**, CONCAVE -2015, Hyderabad Institute of technology and Management, Hyderabad

Research & Consultancy

1. Brain Computer Interface For Human Motive Detection **(OREMI)**
2. IRTMS System For Industrial Applications **(ACE Gas Analyzers)**
3. 16-channel Data Acquisition System for Missile Applications **(DRDL)**
4. FPGA Implementation Of Data Acquisition System Using XMK For Defense Applications **(DRDL)**
5. OFDM SYSTEM Hardware Implementation **(DRDL)**

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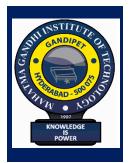- Teaching - 16
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LET'S MEETON SOCIAL:

Resource Person:
Refresher Courses/ Workshops/ Webinars/ Seminars

1. Resource Person and Jury for BRAIN-RAIN 2k22 for evaluating student Projects for State Level School level **Project Exhibition** at CMRCET during 25th March 2022

2. Speaker for AICTE-ISTE Orientation/Refresher Programme on **"Embedded Systems"** Phase-3 (22nd MAY to 28th MAY 2021) by **SSM College of Engineering, Kashmir**

3. Speaker for topic titled "**IoT, It's Applications and Case Study**" on 29th Jan 2021 **Organized by ECE Department Under IETE and CSIP in Association with Institution's Innovation Council (IIC), MHRD Initiative CMR Technical Campus, Hyderabad, Telangana**

4. Resource Person for topic titled "**Basic Programming for Embedded Systems**" on 12th Feb 2021 in Two-Week AICTE Sponsored FDP on Recent Trends in IoT Using Embedded Systems-Slot-2 during 1st to 13th February 2021

5. Speaker for topic titled "**Prototype Validation-Converting Prototype Into Start-Up" on 12th May 2021** organized by ECE Department in Association with Institution's Innovation Council (IIC 3.0), Ministry of Education (MoE's) Initiative, Govt. of India, CMR Technical Campus, Hyderabad , Telangana

6. Resource Person for topic titled "**Basic Programming for Embedded Systems**" on 12th Feb 2021 in Two-Week AICTE Sponsored FDP on Recent Trends in IoT Using Embedded Systems-Slot-2 during 1st to 13th February 2021

7. Resource Person for topic titled "**IOT-Sample Project Demonstration, CASE STUDY**" on 1st Feb 2021 in Two-Week AICTE Sponsored FDP on Recent Trends in IoT Using Embedded Systems-Slot-2 during 1st to 13th February 2021

8. Resource Person **for AICTE Sponsored FDP on Recent Trends in IoT Using Embedded Systems-Slot-1** during 7th to 19th December 2020

9. Speaker for Two Day Faculty Training Programme on **"Internet of Things using Arduino and Raspberry-Pi"** during 20th to 21st 2018.

10. Resource Person for THREE DAY WORKSHOP on "**Emerging Trends In Research Areas**" during 2nd to 4th November 2015 at CVRCE

11. Resource Person for **TWO DAY REFERESHER COURSE ON Microcontrollers And Its Applilcations** on 8th and 9th October 2015 by Technolites at CVRCE

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12.   Resource Person for THREE DAY REFERESHER COURSE ON **Microprocessors And Microcontrollers** during 12th to 14th JUNE 2017 by ECE Department, CVRCE

Organizer/ Coordinator

1. Coordinator for Two Day workshop on **"Advance Drone Design and Manufacturing"** during 22nd and 23rd April 2022
2. Organizer for AICTE Sponsored FDP on "**Recent Trends in IoT Using Embedded Systems-Slot-1"** during 7th to 19th December 2020
3. Organizer for AICTE Sponsored FDP on **"Recent Trends in IoT Using Embedded Systems-Slot-2"** during 1st to 13th February 2021
4. Organizer/ Speaker for Two Day Faculty Training Programme on **"Internet Of Things using Arduino and Raspberry-Pi"** during 20th to 21st 2018.
5. Organiser for AICTE sponsored TWO DAY SEMINAR on **"Hands On Embedded System Design Using Arduino"** during 30th and 31st January 2018
6. Organiser for IEEE Student Branch **"Practical Approach Of Signal Processing And Embedded System Design Through Labview"** during 23rd to 25th April 2018

FDPs/STTPs Attended (35)

1. FDP: Embedded Systems - **An Application-Driven Approach by STMicroelectronics** August 25 to August 27 2021
2. Online FDP on "**System Design Methodologies for Embedded, IoT, AI, & HPC using Intel FPGA"** (19 - 30 April, 2021), IIT Gauhati by **INTEL** ATAL FDP titled Data Sciences by MSME-Technology Development Center (PPDC),Meerut from 4th to 8th May 2021.
3. **Robotics Powered by ROS** from 25th May to 30th May 2020 by IETE Hyderabad & SmartbridgeArtificial Intelligence from 18th May to 22nd May by MNIIT, Allahabad
4. Recent Trends and Innovations on **Digital Image and Video Processing** 11th to 15th May 2020 at CMRTS
5. **Accelerating Industry 4.0-A Post Covid Paradigm** on 25th to 29th May 2020 by SkyCampus
6. Participated in a Ten Day Workshop titled **"INTEGRATED IOT/ MACHINE LEARNING PROCESS CHIP DESIGN"** at **IIT, Hyderabad** during **21st to 30th May 2019** organized by **lemon Flip Solutions Pvt. Ltd.**

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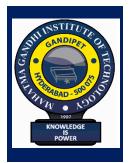
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7. Participated in **National Level** Faculty Development Program on "**Data Visualization And Machine Learning Using Python**" **during 9th to 13th April 2018 at CVRCE.**

8. **Mr. K. Bapayya,** Asst. Prof, Dept. of Electronics and Communication Engineering participated in a 6-day FDP on **"Computer Vision And Image Processing "** by **E & ICT ACADEMY – NITW** held at CMRTES, Hyderabad on 4th to 9th December, 2017.

9. **Mr. K. Bapayya,** Asst. Prof, Dept. of Electronics and Communication Engineering participated in a 10-day FDP on **"ENTREPRENEURSHIP DEVELOPMENT"** held at ni-MSME, yosufguda-Hyderabad from 30th October to 11th November, 2017.

10. **Mr. K. Bapayya,** Asst. Prof, Dept. of Electronics and Communication Engineering participated in a 1-day FDP on **"INDUSTRIAL INTERNET OF THINGS"** held at **ECIL, Hyderabad** on 28th October 2017.

11. Participated in training on **"BHUVAN OVERVIEW**" conducted **NATIONAL REMOTE SENSING AGENCY, ISRO** during 7th and 8th April 2015.

12. Participated in One Day Workshop on "**EMBEDDED AND REAL TIME OPERATING SYSTEMS"** on 04/02/2017 by Mr. K. Srinivas, **CDAC**.

13. Attended Three-Day Course Work on "**RESEARCH METHODOLOGY"** at **K L UNIVERSITY** during 05/07/2017 to 07/07/2017.

14. Participated in TWO DAY NATIONAL SYMPOSIUM on "**HETEROGEEOUS COMPUTING, PLATFORMS, TOOLS AND APPLICATIONS**" held during 31st August ad 1st September 2012 by departmrnt of ECE, University College of Engineering, **OSMANIA UNIVERSITY** under **TEQIP** in collobration with **AMD (India)**.

15. Attended Three-day Faculty Development Program on**"MATLAB, SIMULINK & IMAGE PROCESSING" BY MATHWORKS during** 24th to 26th April 2017

16. Attended two day workshop on "**MATHEMATICAL METHODS FOR IMAGE PROCESSING AND ENGINEERING APPLICATIONS**" during 5th and 6th March 2013 by Dept. of ECE, **CBIT.**

17. Participated in two days workshop on **"CMOS VLSI AND ASIC DESIGNS"** conducted by Dept. of ECE during 10t to 11th August 2007 at **J.N.T.U COLLEGE OF ENGINEERING**

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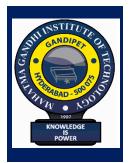
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EVENTS:
- Organized - 06
- Attended - 35

LET'S MEETON SOCIAL:

18. Attended three days Faculty Development Programme on **"STATISTICAL SIGNAL PROCESSING"** organized by Digital Signal Processing Division, School of electronics Engineering(SENSE), **VELLORE INSTITUTE OF TECHNOLOGY UNIVERSITY** during February 18th to 20th 2012

19. Participated in One Day Seminar on **"MODULATION, BER & CAPACITY"** on 3rd December 2016 at CVRCE.

20. Participated in ONE WEEK WORKSHOP on VLSI and "**EMBEDDED SYSTEM DESIGN IN COMMUNICATIONS"** from November 15th to 19th 2016 at CVRCE

21. Participated in **One-Week Faculty Development Programme on "ELECTROMAGNETIC FIELDS, TRANSMISSION LINES AND THEIR APPLICATIONS"** during 21st – 25th November 2016 at CVR College of Engineering.

22. Attended **National Conference on "COMPUTER VISION"** held during 6th and 7th March 2014 at CVR College of Engineering.

23. Faculy Volunteer for Media and Publicity for "**SMART INDIA HACKATHON", 2017** during April 1st and 2nd 2017.

24. Participated in TWO DAY FDP on **"ARDUINO PRODRAMMING FOR MPMC LAB"** on 15th and 16th June 2017.

25. Participated in three day workshop titled **"IMPLEMENTATION OF DSP ALGORITHMS USING MATLAB"** during 20th to 22nd February 2008 at **MRITS.**

26. Participated in two day workshop on "**EMERGING RESEARCH METHODOLOGY"** held on 17th ad 18th January 2014 at CVRCE

27. Attended Seminar on **"IMPLEMENTATION OF MATLAB AND SIMULINK ALGOITHMS ONTO FPGA's"**- Hyderabad on 12th September 2013 by **MATHWORKS at Sapphire Ballroom, Hyderabad Marriott Hotel Convention centre**

28. Participated in three day training on **"CADENCE TOOLS"** by Cadence, Bangalore held during 10th to 12th November 2014

29. Satisfactorily participated in Eight day workshop on **"ASIC PHYSICAL DESIGN USING CADENCE TOOLS"** held during August 2011 under Quality Improvement Program at CVRCE

30. Participated in TEN DAY staff development programme in Communication Skills and English Language organized by CVR College of Engineering from 20th June to 1st July 2011.

31. Participated in in workshop titled **"DSP Processor [TMS320C6711]**" conducted by Cranes Varsity at Gudlavalleru Engineering College, Gudlavalleru

32. Participated in refresher course on **"NEURAL NETWORKS"** at MREC during 22nd June 2007 to 23rd June 2007.
33. **Workshop Head** for **CIENCIA-2k12**, **National Level Symposium** during 16th and 17th March 2012 at CVRCE
34. Participated in workshop titles **"VLSI DESIGN"** during 9th and 10th February 2007 organized by Department of ECE, **Gudlavalleru Engineering College**
35. Participated in workshop titled **"DSP PROCESSORS"** during 20th to 21st June 2007 at MREC

Subjects Taught

MPMC, Embedded Systems, Operating Systems, Embedded Real-Time Operating Systems, Cellular and Mobile Communications, WCN, TSSN, Hardware Software Co-Design, AOS, RTS, Research Methodology & Intellectual Property Rights, Professional Ethics

Online Certifications

Coursera, Udmey, University of Michigan
1. **Completed Course: Python Programming**
2. **Data Science, Machine Learning through Python**

Honors/ Rewards

1. **Won 1st Prize** in **ROBOTHON** and received award from **by her Excellency HON'BLE GOVERNOR OF TELANGANA and & LT GOVERNOR OF PUDUCHERRY DR (MRS) TAMILI SAI SOUNDARARAJAN** organized by Military College of Electronics and Mechanical Engineering (MCEME), Thirumalgiri during 17th -18th December 2021
2. **Won 1st PRIZE** with cash of Rs. 50,000/- from **MINISTRY OF WATER RESOURCES** in National Level "**SMART INDIA HACKATHAON-2019"** for topic titled "**Water Quality Measurement Using Unmanned Aerial Vehicle System"** during **8th-12th July 2019,** Mentoring for the Team **TECHNO CREWS** at BSDU **(Baritiya Skill Development University), JAIPUR**-received award from **Dr. M. P. Poonia**, **Vice-Chairman**-AICTE
3. **Won 1st Priz**e in **IDEATHON,** EUREKA HACKATHON 3.0, 24-HOURS NATIONAL LEVEL INNOVATION at RAISONI GROUP OF INSTITUTIONS PUNE CAMPUS, **PUNE**
4. **Won 3rd Prize** in EUREKA **HACKATHON** 3.0, 24-HOURS NATIONAL LEVEL INNOVATION at RAISONI GROUP OF INSTITUTIONS PUNE CAMPUS, **PUNE**
5. Mentor for team and **Won 2st Prize** in a 36- HOUR NATIONAL LEVEL **WOMEN HACKATHON** IN COLLABORATION

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WITH JHUB AT GNITS ON ENVIRONMENT SAFETY during 31st Jan- Feb 1st 2020

6. Mentor for team - **Won 1st PRIZE** for the topic titled "**AI Based Module for Rice Pest Detection**" in the event "**RESEARCH DAY**" held at CBIT during 23rd August 2019

7. Mentor for team **and Won 2nd prize** in **poster presentation** contest held by **Institute of Engineers** on **National Women's Day** on 28 th October 2019 with topic titled "**Application Of LORAWAN Based IOT Devices For Services In The Tactical Military Environment**".

8. Mentor for Team- Won CONSOLATION PRIZE for the Topic titled "**Mobile Based Artificial Intelligence Module for Rice Pest Detection**" during **9th-10th February 2019** organized by **ICAR- Indian Institute of Rice Research**, Rajender Nagar, Hyderabad.

Any Other Contribution

1. Coordinator for **TEKHACK HACKATHON**, A 3-DAY INTERNAL HACKATHON BY SMARTBRIDGE AT **MGIT** DURING 13th to 15th FEBRUARY 2020

2. Coordinator for **INTERNAL HACKATHON FOR SIH-2022** at MGIT on 21st January 2020

3. Coordinator for **INTERNAL HACKATHON FOR SIH-2020** at MGIT on 21st January 2020

4. Organizer for the event "**SMART INDIA HACKATHON-2017**", Media and Publicity Committee.

5. Guided at least 21- M-tech Projects