



# Dr. T. D. Bhatt

## Professor



Education Qualifications: Doctor of Philosophy  
Specialization: Systems and Signal Processing

### ADDRESS:

- C – Block -Room No 305

JNTUH ID: 52150404-201425

### EMAIL:

tdbhatt\_ece@mgit.ac.in

### DATE OF JOINING:

27-11-2000

### EXPERIENCE - 30 Years

- Teaching - 25
- Research - 04
- Industry - 14
- Others –

### SUMMARY:

- Publications - 16
- Conferences - 21
- Patents – 0
- Books – 0
- Honors/Awards - 0

### EVENTS:

- Organized - 07
- Attended - 20

### LET'S MEET ON SOCIAL:

### Membership of Professional Bodies:

1. FIETE
2. LMISTE

### Responsibilities Held At Institution Level

1. Additional In-charge Academic and Examination Section for 4 years (2003-2007)
2. Transport In-charge – 2.5 Years (2012-2015)
3. Security In-charge MGIT Campus (2017 to till date)
4. Convener Academic Audit Committee, MGIT (2020 to Till date)

### Responsibilities Held At Department Level

1. Coordinator NBA
2. Faculty In-charge for 4<sup>th</sup> Year (for conducting Technical seminars and Project reviews)
3. Member Academic Council ECE Department.
4. Member BOS ECE Department

### Courses Handled at Under Graduate /Post Graduate Level:

#### UG:

1. Radar Systems
2. Optical Communications
3. Electromagnetic Waves and Transmission Lines
4. Antenna and Wave Propagation
5. Pulse and Digital Circuits
6. Electronic Devices and Circuits
7. Basic Electrical and Electronics Engineering
8. Electromagnetic Fields and Waves

**PG:** Radar Signal Processing

### Publications:

#### International Journals: Fifteen (15) Papers

1. S.P Singh, **T. D. Bhatt** “Sidelobes Reduction Technique for Biphase Barker Codes” International Journal of Engineering Trends and Technology, Volume 69 Issue 6, 239-242, June, 2021 ISSN: 2231 – 5381 (**Scopus Indexed**) doi: 10.14445/22315381/IJETT-V69I6P234
2. **T. D. Bhatt**, “Sequences with Perfect Periodic Auto and Cross Correlation Properties” **Traitement du Signal**, 37(3), June 2020, pp.477-484. (**SCI-E Indexed**)
3. **T. D. Bhatt**, and M. Anusha, “Phase Coded Waveforms for Pulse Compression Radar Systems”, *International journal on emerging technology*, 11(3), June 2020, pp.1122-1127.
4. **T. D. Bhatt**, “Construction of Perfect Periodic Binary Sequences for Radar Applications”, *International Journal on Emerging*

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LET'S MEET ON SOCIAL:

*Technologies*, 11(2), April 2020, pp.662–667. (**Scopus Indexed**)

5. B. Shiny Sucharitha, **T D Bhatt**, S. Swetha, “Reduction of Sidelobes of Biphase Codes Using Transversal Filter”, *International Journal of Research*, Vol. VIII (V), May 2019, pp. 11-15.
6. B. Purushotham, **T D Bhatt**, “Performance Analysis of Peak Cancellation Scrambling Technique for Interference Reduction in OFDM System”, *International Journal of Research*, Vol.5, (16), June 2018, pp. 99-105.
7. **T. D. Bhatt**, S. P. Singh “High-Resolution Adaptive Waveform Radar” *International Journal of Advanced Electronics and Radar Technology*, 2014, Volume 2, Issue 1, pp. 21-31.
8. R. Lavanya, S P Singh, **T D Bhatt**, “Polyphase Codes Sidelobe Suppression” *IJECE*, Vol-2, Issue4, Oct-Dec 2014, pp. 47-50
9. B. Manohar, **T. D. Bhatt**, “ Image Retrieval System using Color and Texture Features using Wavelet Transforms” *International Journal of Scientific Engineering and Technology Research*, Vol.03, Issue.42 November-2014, Pages:8575-8578.
10. M. Mounika Yadav, T. M. Praneeth Naidu, **T. D. Bhatt**, “FACIAL RECOGNITION SYSTEM FOR SECURE E-MAIL ACCESS” *International Journal of IJESR/December 2014/ Vol-4/Issue-10*, pp. 767-770.
11. B. Krishna Kumari, T. M. Praneeth Naidu, **T. D. Bhatt**, “SELECTIVE VIDEO COMPRESSION BASED ON ROI USING GAZE LOCATION PREDICTION” *International Journal of IJESR/December 2014/ Vol-4, Issue-12*, pp. 787-793.
12. **T. D. Bhatt**, Rajan, E. G., and Somasekhar Rao, P. V. D., “Design of High-Resolution Radar Waveforms for Multi-Radar and Dense target environments” *International Journal of IET (UK), Radar, Sonar and Navigation*, vol. 5, no. 7, August 2011, pp. 716-725. (**SCI-Indexed**)
13. **T. D. Bhatt**, Rajan, E. G., and Somasekhar Rao, P. V. D., “Target Detection and High Delay Doppler Resolution Measurement Using Adaptive Waveform Radar”, *International Journal of Systemics, Cybernetics and Informatics*, Jan 2008, pp. 62-65.
14. **T. D. Bhatt**, Rajan, E. G., and Somasekhar Rao, P. V. D., “Design of Frequency Coded Waveforms for Target Detection” *International Journal of IET (UK), Radar, Sonar and Navigation*, vol. 2, no. 5, October 2008, pp. 388-394. (**SCI-Indexed**)
15. **T. D. Bhatt**, Rajan, E. G., “Electronic Support Measures-An Introduction”, *International Journal of Systemics, Cybernetics and Informatics*, April 2007.

**National journals : Four (01) Papers**

1. E. V. Suryanarayana, P. Siddaiah, **T. D. Bhatt**, “Design of Biphase code for Pulse Compression Radar”, *ANU Journal of Engineering and Technology*, Special Edition, March 2017, ISSN 0976-3414, pp.145-149.

**Conferences:**

**International: Seven (18) Papers**

1. P. Shravan Kumar, S. P. Singh and **T. D. Bhatt**, “Sequence Set

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LET'S MEET ON SOCIAL:

- Design for Radar System” Internal Conference on Advances in Signal Processing and Communication Engineering (ICASPACE-21), **Springer** 29-31 July 2021, MGIT, Hyderabad, India.
2. **T.D. Bhatt** and S.P. Singh, “Non-coherent Pulse Compression Waveforms”, 2021 3rd **IEEE**, International Conference on Signal Processing and Communication (ICPSC), 13 – 14 May 2021, Coimbatore, India.
  3. **T.D. Bhatt**, “Pulse Compression Sequences for Non-coherent Processing”, 2nd International Conference on Advances in Applied Sciences, Engineering and Technology, May 20-21, 2021, K.R. Mangalam University, Gurugram, India, Academic Conference on Electrical, Electronics and Computer Engineering (IACEECE), Hyderabad on 22 Sep 2013
  4. Suryanarayana, E. V., Siddaiah, P. and **Bhatt, T. D.** (2019). Pulse Compression Waveforms: Applications to Radar Systems. *Proceeding of International Conference on Emerging Trends in Engineering (ICETE)*. Springer, 1: pp. 61-68.
  5. E. V. N. Puran Chandra Rao, S. P. Singh, **T. D. Bhatt**- Three sixty Phase Code Design with Good Discrimination Factor” ICNFMH-2017, **IETE**, Hyderabad, 03 September, 2017.
  6. E. N .V. Puran Chandra Rao, S P Singh, **Bhatt T. D.**, Binary-Codes Sidlobes Reduction Techniques, International Radar symposium 2015 (**IRSI-15**) 15-19 Dec, 2015 Bangalore, India.
  7. E. N .V. Puran Chandra Rao, S P Singh, Bhatt T. D., Orthogonal Forty eight Sequences design using MGA, International Conference on Innovations in Electronics and Communication Engineering (**ICIECE-14**), 18-19 July 2014, Hyderabad, India.
  8. E. N .V. Puran Chandra Rao, S P Singh, **Bhatt T. D.**, One Twenty phase code design with good discrimination factor, International Radar symposium 2013 (**IRSI-13**) 12-14 Dec, 2013 Bangalore, India
  9. S P Singh, **Bhatt T D**, Sushant Chaudhary “Ninety-phase signal design for Good Merit Factor” International Symposium on Microwaves (**ISM-12**), Bangalore, India, 11-14 Dec, 2012.
  10. E. N. V. Puran Chandra Rao, S P Singh, **Bhatt T D**, E G Rajan “Orthogonal Sixty -phase Sequence Sets Design using MSA” presented in International Conference **ICSCI-2012**, Hyderabad, India, 15-18 February 2012.
  11. S Babu Rao, S P Singh, **Bhatt T D**, “Sixty-four phase Code Design with Good Ambiguity function” International Conference on Computing, Communications, Systems and Aeronautics (**ICCCSA-2012**), Hyderabad, 30-31 March 2012, pp. 114-117.
  12. **Bhatt, T. D.**, Somasekhar Rao, P. V. D., and Rajan, E. G., “Radar Signal Design for Enhanced Delay-Doppler Resolution for Multi-user and Dense Target Environments”, presented in International Radar Symposium India-2011 (**IRSI-11**) Bangalore, India, 30 Nov - 4 Dec, 2011.
  13. **Bhatt, T. D.**, Somasekhar Rao, P. V. D., and Rajan, E. G., “Effects of Amplitude Weighting in Performance Characteristics of

Frequency Coded Waveforms”, *Proc. of International Conference on ASECI -10*, Vijayawada, India, Jan 2010, pp. 15-18.

14. **Bhatt, T. D.**, Rajan, E. G., and Somasekhar Rao, P. V. D., “High Delay Doppler Resolution Measurement Using Adaptive Waveform Radar”, *Proc. of ICSCI - 2008*, Hyderabad, India, 2-5 Jan 2008, pp. 625-629.
15. **Bhatt, T. D.**, Rajan, E. G., and Somasekhar Rao, P. V. D., “Electronic Support Measures and Counter Support Measures”, *Proceedings of ICSCI.-2007*, Jan 2007, Hyderabad pp. 860-664.
16. Singh S. P., **Bhatt T. D.**, “Moving Target detection using Real-Time Signal Processing on DSP Processor”, *Proceedings of ICSCI-2004*, Feb 12-15, Hyderabad, pp. 5-8.
17. Singh S. P., **Bhatt T. D.**, Nageswara Rao M. V., “A Direct digital Frequency Synthesizer using an IIR Resonator Implemented with a DSP TMS 320 C5X”, *Proceedings of ICSCI-2004*, Feb 12-15, Hyderabad, pp. 9-13.
18. Nageswara Rao M. V., **Bhatt T. D.**, Singh S. P., “Extraction of Linear and Curvilinear Road Segments from Satellite Images”, *Proceedings of ICSCI-2004*, Feb 12-15, Hyderabad, pp. 348-353

#### **Conferences:**

##### **National: Three (03) Papers**

1. **Bhatt T. D.**, Soni N B., “Extremely Low Frequency (ELF) Radiation from Electrical Power Lines and the Genetic Effects of Power Frequency Fields” National seminar on power systems and new challenges, Institution of Engineers (India), Hyderabad, July 2003.
2. **Bhatt T. D.**, Singh S P, “Radar Signal Identification Using Real Time Processing” on DSP TMS 320 C5X” presented in the seminar on State of Art Technologies ( SAT-03 ) held in September 2003 in IETE, Viskhapatnam.
3. Singh S P, **Bhatt T. D**, Roy D P, “Radar Signal Processing For Detection Of Target Embedded In Clutter ” presented in the seminar on State of Art Technologies ( SAT-03 ) held in September 2003 in IETE, Viskhapatnam.

#### **Research & Consultancy:**

1. Grant received Rs. 25,000/- for project “Moisture Level Monitoring” Institution of Engineers (India) 2015-16.
2. Grant received Rs. 326666/- for conducting Short Term Training Program, Sponsored by AICTE. 2018-19.
3. Grant received Rs. 5,56,000/- for conducting Faculty Development Program, Sponsored by AICTE 2019-20.

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#### EVENTS:

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## Events Organized (07):

### FDPs/STTPs:

1. Organized FDP on “E-CAD and VLSI Design”, 6-8 Sep 2012, Department of ECE, MGIT.
2. FDP on “RF Antenna Design” Organized by E&ICT Academy Warangal & MGIT, 19-24 June 2017.
3. Short Term Training Program on STTP on Research Avenues in Machine Learning Approaches for Pattern Recognition from 24-29 August 2020
4. Short Term Training Program on STTP on Research Avenues in Machine Learning Approaches for Pattern Recognition from 21-26 September 2020
5. Short Term Training Program on STTP on Research Avenues in Machine Learning Approaches for Pattern Recognition from 02-07 November 2020
6. Faculty Development Program on Recent Trends in IoT Using Embedded Systems from 07-19 December 2020
7. Faculty Development Program on Recent Trends in IoT Using Embedded Systems from 02-13 February 2021.

### Events Attended

#### FDPs/STTPs (10)

1. FDP on “ELECTRO MAGNETIC FIELD THEORY” conducted at VNR VIGNAN JYOTHI Institute of technology from 17<sup>th</sup> – 22<sup>nd</sup> Jun 2002.
2. Remote Sensing and Satellite Image Processing, 28 Jun -09 Jul 2004, CBIT Hyderabad, sponsored by AICTE-ISTE.
3. Teaching Learning and Research & Technology, MGIT Hyderabad, 30Jul-03August 2012, sponsored by IIPC-MGIT Funded by AICTE.
4. Faculty Development programme in Entrepreneurship, 22Apr-03May 2013, EDC-MGIT Funded by AICTE
5. One week Faculty Development Programme attended on “Digital Design Using Verilog & VHDL” 15-19 December 2014, conducted by Department of ECE, MGIT.
6. Research Trends in Digital Image & Video Processing, 4-16 December 2017, conducted by MGIT and funded by AICTE.
7. FDP on Research Opportunities in Image Processing and Machine Learning
8. FDP on Recent Advances in Biomedical Applications and Communication Networks
9. STTP on Fundamentals of Radar Signal Processing
10. FDP on Relevance of Mathematics to Core Engineering Sciences

### Refresher Courses/ Workshops/ Webinars/ Seminars/ Guest Lecture

1. Attended “TRISHUL USERS TRAINING -PHASE-I” conducted by DRDL Hyderabad, from 26<sup>th</sup> March to 10<sup>th</sup> April 1997.
2. Attended “TRISHUL USERS TRAINING -PHASE-IV” conducted by DRDL Hyderabad at POKHRAN, Rajasthan, from 20<sup>th</sup> March to 10<sup>th</sup> Jun 1997.

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3. Refresher Course on SPATIAL INFORMATION TECHNOLOGY, CONDUCTED BY Academic Staff College JNTU Hyderabad, from 03 August 2001 to 25 August 2001.
4. Attended Two days “Workshop on Embedded Software” conducted by ECIL Hyderabad from 28<sup>th</sup> 2002 to 29<sup>th</sup> Dec 2002.
5. Attended “Industry -Institute Interface” One day workshop on 21 Dec, 2002 at Vice Roy Hotel Secunderabad.
6. Webinar on Radar, SAR and its applications

#### **Online Certifications:**

1. **NPTEL, Online Certification FDP Course** on Microwave Theory and Techniques Sep-Dec 2020 **(12 Weeks)**
2. **NPTEL, Online Certification FDP Course on** Principles and Techniques of Modern Radar Systems July- Oct 2019 **(12 Weeks)**
3. **Coursera online certification course on** Neural Networks and Deep Learning completed on 15/05/2020 **(4 Weeks)**
4. **Coursera online certification course on** Introduction to Electronics Completed on 10/06/2020 (7 Weeks)

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