# **RESUME**

# Dr.Badugu.Suresh

Associate Professor. Department of ECE, KL University, Guntur, Andhraparadesh, India, 522502. Mob No-9849128792,7036800888. Web page: http://kluniversity.irins.org/profile/78023 E-mail: suresh.nitr@gmail.com



# Objective

Seeking a position in challenging environment, where my skills are

put to effective use and contribute immensely to growth of organization, that enables to give me chance

to up-date my knowledge and be a part of team in work and ability to job satisfaction.

# **Educational Qualification**

# <u>PhD</u>

Degree	: PhD
Research Area	: Infrared Thermography, Signal processing
University	: KL Deemed to be University, Guntur.
Year of passing	: 2019
Creduction	

# **Post-Graduation**

Degree	: M.Tech
Specialization	: Telematics and Signal processing
Institution	: National Institute of Technology, Rourkela.
Year of passing	: 2010
Percentage of marks	: 83.30
Graduation	
Degree	: B-Tech
Branch	: Electronics and Communication engineering
Institution	: Prakasam Engineering College, Kandukur, Prakasam (D.t)
University	: JNTU Hyderabad
Year of Passing	: 2008.
Percentage of marks	: 62.34 %

# **Pre Graduation**

- $\succ$  12<sup>th</sup> Passed in First Class, with 73.80%.
- $\succ$  10<sup>th</sup> Passed in First Class, with 68.83%.

# **Experience** (10 years)

Presently working as Associate Professor in KL Deemed to be UNIVERSITY, Guntur, A.P.  $\geq$ from August 2020 to till date.

- As Assistant Professor in KL Deemed to be UNIVERSITY, Guntur, A.P. from JULY 2012 to July 2020.
- As Lecturer in Majhigariyani Institute of Science and Technology (MITS), Ravaged, Orissa during the year 2010 July to 2012 June.

**Research Interests** 

- Sensing and Imaging for Industrial Quality Control
- Bio-medical Imaging
- Signal and Video Processing Techniques for Industrial Imaging
- Infrared Imaging
- Non-destructive Testing & Evaluation

# Administrative Experience

- Practice School Vijayawada region Manager
- Project Coordinator
- Examination In charge
- Seminar Coordinator
- Work shop Coordinator

# **Research Journals**

- 1. V.S Ghali,Bsuresh and A hemanth,"Data fusion for enhanced defect Detectability in non stationary thermal wave imaging "IEEE sensors,2015, 15(12)pp6761-6762.
- 2. B Suresh, SK Subhani, A Vijayalakshmi, VH Vardhan, VS Ghali "Chirp Z transform based enhanced frequency resolution for depth resolvable non stationary thermal wave imaging, "Rev.Sci.Instr., 88(1), 014901, (2017)
- 3. B.Suresh,Sk. Subhani,V.S.Ghali and R.Mulaveesala"Subsurface details fusion for anomaly detection in non stationary thermal wave imaging", Insight, 59(10),2017.
- Sk. Subhani .B Suresh and V.S.Ghali "Orthogonal projection approach for depth-resolvable subsurface analysis in non-stationary thermal wave imaging" Infrared Imaging Insight ,Vol 58 ,No 1, January 2016.
- Sk.Subhani ,B.Suresh, V.S.Ghali, "Empirical mode decomposition approach for defect detection in non – stationary thermal wave imaging," NDT & E Int., 81, pp.39-45 (2016).
- 6. Sk.Subhani ,B.Suresh,V.S.Ghali"Quantitative subsurface analysis using frequency modulated thermal wave imaging 'Infrared Physics and Technology, 88 (41-47),2018.
- B.Suresh,K.Rajesh Babu, SkSubhani V.S.Ghali" Depth resolution in non stationary thermal wave imaging using wavelet transform" International Journal of Pure and Applied Mathematics.117(19)2017.

- 8. SkSubhani,B.Suresh,K.RajeshBabu,V.S.Ghali "Recent advancements in subsurface analysiswith quadratic frequency modulated thermal wave imaging,"JATIT, ISSN:1798-2340 95(9) 2017.
- B.Suresh, Sk.Subhani, S. Suparshya Babu, S. Susruthababu "Matched Energy Modality for Non Stationary Thermal Wave Imaging", IEEE international conference on Signal processing and communication engineering Systems Space 2015
- 10. Md. M. Pasha ,B.Suresh,K.Rajesh Babu, SkSubhani ,G.V.Subbarao" Barker coded modulated thermal wave imaging for defect detection of glass fiber reinforced plastic" ARPN Journal of Engineering and Applied Sciences, Vol. 13, No. 10, may 2018.
- Md M Pasha,BSuresh,K.Lasya,M.Bindu,Sk.Subhani, W.Sridhar, G.V.Subbarao,
  Quantitative defect detectability in quadratic frequency modulated thermal wave imaging"
  Journal of Advanced Research in Dynamical and Control Systems Vol. 9. Sp- 14 / 2017.
- B.Suresh, Jammula, S.K., G.V Subbarao "Automatic detection of subsurface anomalies using non-linear chirped thermography." International Journal of Innovative Technology and Exploring Engineering, 8(6), 1247-1249, (2019).
- B. Suresh, M. Manorama, M. M. Bhupesh, K. Sai Kiran, G. V. P. Chandra Sekhar Yadav and V. S. Ghali "Advanced Signal Processing Approaches for Quadratic Frequency Modulated Thermal Wave Imaging", International Journal of Emerging Trends in Engineering Research (IJETER), Volume 7 No. 11 (2019), Pages 599 603.
- V.KrishnaChaitanya, N.PranayManikanta, S.MukeshKumar, M.AnilKumar, B.Suresh, V.S.Ghali "Defect Detection using Active Contour Method" International Journal of Recent Technology and Engineering (IJRTE), ISSN: 2277-3878, Volume-8 Issue-4, November 2019.
- 15. Badugu Suresh, T. Nikhilesh, T. Abhishek, M. Balakrishna, G. V. P. Chandra Sekhar Yadav, V. S. Ghali, "Qualitative Subsurface Analysis in Quadratic Frequency Modulated Thermal Wave Imaging", International Journal of Emerging Trends in Engineering Research (IJETER), Volume 8 No. 1 (2020), Pages 31–34.
- 16. Badugu Suresh, K Nikhel Sathvik, Syed Imran, O V Gopi Reddy, V Gopi Tilak, Vijayalakshmi, V S Ghali," Diagnosing Osteoporosis through Numerical Simulation of Bone Sample byNon-Stationary Thermal Wave Imaging" International Journal of Emerging Trends in Engineering Research (IJETER), Volume 8 No. 3 (2020), Pages 776–779.

- 17. Narava Pranay Manikanta, S Mukesh Kumar, M Anil Kumar, Badugu Suresh, G V Subbarao" Detection of Defects in Sub Surface Area Using NDT method by saliency segmentation" Journal of Xidian University, ISSN No:1001-2400, Volume 14, Issue 5, 2020.
- Satwik, V.V.N.S.G., Sai Prahlad, D., Gopi Tilak, V., B.suresh, G.V Subbarao," Artificial neural network for subsurface anomaly detection in QFMTWI" Journal of Critical Reviews, ISSN-2394-5125 Vol 7, Issue 11, 2020.
- Md. M. Pasha, G. V. Subba Rao, B. Suresh, S Tabassum" Compressive Sensing In Quadrature Frequency Modulated Thermal Wave Imaging", Journal of Critical Reviews, ISSN- 2394-5125 Vol 7, Issue 12, 2020.

#### **International Conferences**

- B.Suresh, Sk.Subhani, S. Suparshya Babu, S. Susruthababu "Matched Energy Modality for Non Stationary Thermal Wave Imaging" IEEE international conference on Signal processing and communication engineering Systems Space 2015.
- B. Suresh, V Pardhasardhireddy, P S Vinod, and V S Ghali "Comparative Data Processing Methods for Non-Stationary Thermal Wave Imaging" The first QIRT Asia conference on QIRT –ASIA- 2015 organised by ISNT Kalpak am chapter Mahabalipuram.
- Badugu Suresh, G.S Rath," *Image* Encryption And Authentication By Orthonormal Transform With CRC "International Conference on Communication, Computing & Security (ICCCS2011), NIT,Rourkela,Odisha, India, February 12-14, 2011, ACM 2011, ISBN 978-1-4503-0464-1.
- Badugu Suresh, G.S Rath," Image Encryption and Authentication by Discrete Cosine Transform With CRC" International Conference on emerging technologies(ICET2011),NIT Durgapur, West Bengal,India,March,28-30,2011.
- Ravikanth kanna, S.K.Patara, Badugu suresh," Design of Zigbee Transmitter Using Mat lab/Simulink" International Conference on emerging technologies(ICET2011) NIT Durgapur, West Bengal, India, March, 28-30, 2011.
- A D Hanumantharao, Badugu Suresh, T. Panigrahi, U K Sahoo, G. Panda," Exact Maximum Likelihood Direction of Arrival Estimation Using Bacteria Forging Optimisation" International Conference on emerging technologies (ICET2011), NIT Durgapur, West Bengal, India, March, 28-30, 2011.

- B.Suresh,SkSubhani, K.RajeshBabu,V.S.Ghali "Recent advances in subsurface analysis with quadratic frequency modulated thermal wave imaging" National conference on Knowledge based Inventive Telecommunication Systems NCKITS 2017.
- 8. B.Suresh,SkSubhani,V.SGhali"Data Fusion Based Enhanced Defect Detection for Quadratic Frequency Modulated Thermal wave Imaging" National seminar NDE 2016 of Indian Society for Non Destructive Testing Organised By ISNT Thiruvanathapuram.
- B.Suresh, Sk. Shareena, Sk. Subhani and V.S.Ghali" Data Fusion For Subsurface Analysis In Non Stationary Thermal Wave Imaging" National seminar NDE 2015 of Indian Society for Non Destructive Testing Organised By ISNT Hyderabad 26-28,2015.
- SkSubhani, B Suresh, Md Pasha, R Jayalakshamma, GV Subbarao''Chirp Z transform based Enhanced Defect Depth Resolution for Thermographic analysis of Composites'' 26th NDE conference December 2016 at Tthiruvanthapuram,Kerala.

# **International Journals**

- 1. Suresh Badugu, Anoosha Movva ," Positive Train control ", International Journal of Emerging Technology and advanced Engineering ISSN: 2250-2459,ISO 9001:2008 Certified Journal ,Volume 3,Issue 4,April 2013.
- Gowthami Kandhagada, Badugu suresh," A Comparative study on Different Lighting Displays "International Journal of Engineering Research and Technology ISSN 2278-0181, Volume 2, Issue 4, April 2013.
- 3. R.Sneha,B.suresh,"Expansions in optics for Safety In LED Lighting "International Journal of Engineering trends and technology ISSN 2231-5381, Volume 4,Issue 4,April 2013
- 4. Alisha, Badugu suresh," A Noval Approach for Two Dimensional Discrete Wavelet Transform of FPGA" International Journal of Computer Science and Technology ISSN: 09768491(online) and ISSN: 2229-4333, Volume 4,Issue 2,April –june 2013.
- 5. Spandana Gajula, Suresh Badugu," Real Time adaptable Automation" International Journal of Engineering trends and technology ISSN 2231-5381, Volume 4,Issue 4,April 2013.
- Nandinii Alla, Suresh Badugu"Advanced Digital Signal Processing for Decressing Power Dissipation", International Journal of Computer Science and Technology ISSN: 09768491(online) and ISSN: 2229-4333, Volume 4, Issue 2, April – june 2013.
- G.VSairam, B.suresh, "Intelligent Mechatronic Braking Systems "International Journal of Emerging Technology and advanced Engineering ISSN 2250-2459, ISO 9001:2008 Certified Journal, Volume 3, Issue 4, April 2013.

- 8. Bheemi Reddy Sandeep Reddy, Badugu Suresh," Energy Information System "International Journal of Engineering trends and technology ISSN 2231-5381, Volume 4, Issue 4, April 2013
- 9. E.Tejaswi, Suresh.B ,"Survey of Power Control Schemes for LTE Uplink" International Journal of computer Science and information Technologies, ISSN 0975-9646 volume 4(2),2013,369-373.
- 10. N.Bhavana, B.Suresh," Smart Heater ", International Journal of Engineering trends and technology ISSN 2231-5381, Volume 4, Issue 4, April 2013.
- Singavarapu Navya, Suresh Badugu, "Radio-frequency Identification Incorporation with Wireless sensor Networks and Devices", International Journal of Computer Science and Technology ISSN: 09768491(online)and ISSN: 2229-4333, Volume 4,Issue 2,April –june 2013.
- Y.Madhuri, B.Suresh ,"Design aspects of Phased Array Antenna at L-band", International Journal of Engineering and Advanced Technology, ISSN 2249-8958, Volume-2, Issue -4, April 2013.
- 13. J.Prathyusha, B.Suresh," Radiation Pattern Analysis of Fractal Micro-strip Patch Antenna", International Journal of Engineering and Advanced Technology,ISSN 2249-8958,Volume-2,Issue -4,April 2013.
- 14. Spandana Gajula, Marri Aarthi, LeelaKrishna Aravapalli, Suresh Badugu,"Automation A solution for Energy Crisis.,Global Journal of Computer Application ISSN:2249-1945 volume3(2),2013 1225-1230.

Faculty Development Programs and Workshops attended

- 1. Block chain technology organized by IIT, Roorkee, 8 Days from may 1 2020 to may 8th 2020.
- Machine learning learning using python organized by IIT, Roorkee, from april 2020 to april 29 2020
- 3. Recent communications tools and its applications ST.MARTINSENGINEERINGCOLLEGE, SECUNDERABAD from may 19 th 2020 to may 23 rd 2020
- 4. NAAC Awareness program for faculty organized MMIT, PUNE , from may 8th to may 14th 2020
- 5. Overview of & its applications in speech processing organized by Chebrolu Engg College, Guntur from June 1, 2020 to June 5, 2020.
- 6. Artificial Intelligence organized by Chaitanya Bharathi Institute of Technology, Hyderabad from May 22, 2020 to May 26, 2020.
- 7. Multifaceted development in signal processing organized by NIT Andhrapradesh, from 5<sup>th</sup> October to 9<sup>th</sup> October 2020.

- 1. Digital image processing
- 2. Optical Engineering
- 3. Speech processing
- 4. Digital communication

#### Technical Skills

- Design & Simulation Tolls : MATLAB, Comsol Multi physics.
- > Operating Systems : Windows 98/ME/XP, DOS
- SolutionsSoftware and Hardware Solutions

# Awards, Honors and Prizes

- ➤ Aacharya Excellence awards 2020:"Excellence Best Thesis Award".
- Invited webinar on Recent Advances in Non-stationary Thermal Wave Imaging for Nondestructive Testing of material at KL University.

5. Bio-medical imaging

6. Analog communication

7. Advance signal processing

8. Biomedical image processing

- ➢ Invited Presentation on Chirp Z transform based enhanced frequency resolution for depth resolvable non stationary thermal wave imaging at KL University.
- > Department of ECE for excellence execution of teaching learning process in AY: 2019-20.
- > Invited Presentation on Matlab basic programming and simulink procedure at MITS Rayagada.
- ▶ All India 2355 Rank in GATE 2008.

# Membership in Professional Bodies

- ➢ IEEE Member Ship:911006673
- ➢ ISTE Member Ship: LM85170
- ➢ IFERP Member ship ID No: PM32907684
- ▶ IAENG Member ship: 222165
- ▶ IRED Member ship: AM101000582815
- > IAAM Member ship: 875201914202
- TERA Membership ID: M19673

# Citations

- Scopus h-index: 6 (Scopus Citations 84)
- Google Scholar h-index:6 (Citations 84)
- ➢ Google Scholar i10-index: 3 (Citations 84)
- Research Gate Score: 10.23 (Citations 80)
- > ORCID
- > Mendeley
- Researcher ID
- Indian Research Information Network System
- Kudos Innovations Ltd

- B.tech Projects Supervision (Completed): 1 Batches(2018-2019) (1 Students)
- B.tech Projects Supervision (Completed): 3 Batches(2019-2020) (9 Students)
- B.tech Projects Supervision : (doing) :3 Batches(2020-2021) (9 Students)

Consultancy and Project proposals

Crack detection in PVC material and the payment of Rs. 22,100/-

#### Thesis Titles

**PhD:** A Thermographic System for Enhanced Subsurface Detail Visualization Through Automatic Detection

M.Tech: Image encryption and authentication by orthonormal transform with CRC

**B.Tech**: Micro-Controller Based Main Annunciator system.

# Editorial Board Member to Reviewed Journals

- 1. The Institution of Engineering and Technology
- 2. Walailak Journal of Science and Technology
- 3. International Journal of Advanced Computer Science and Applications (IJACSA).
- 4. Karbala International Journal of Modern Science

Coursera Online International certification courses completed

- 1. Biomedical Visualisation
- 2. Machine Learning for All
- 3. AI For Everyone
- 4. Programming for Everybody

5.image and Video Processing6.Wireless Communications for Everybody7.Linear Circuits 1: DC Analysis

8.Communication in the 21st Century Workplace.

Coursera Projects Online International certification completed

- 1. Image Processing with Python
- 2. Object Detection with Amazon Sagemaker
- 3. Image Super Resolution Using Autoencoders in Keras
- 4. Image Classification with CNNs using Keras
- 5. Image Compression with K-Means Clustering
- 6. Computer Vision Image Basics with Open CV and Python

Name	:	Dr.Badugu.Suresh
Fathers Name	:	Badugu Sivannarayana
Date of Birth	:	20-05-1987
Gender	:	Male
Nationality	:	Indian
Linguistic Proficiency	:	Telugu, English,
Hobbies	:	Playing games, Internet
Marital Status	:	Married
Address	:	Flat No: 207, Vijay Sai Enclave, Edupugallu Village, Kankipadu
		Mandal, Krishna (D.t) Pin code: 521151, Andhra Pradesh

# Declaration

I hereby declare that the above written particulars are true to the best of my knowledge and belief. Given an opportunity to work in your esteemed organization, I shall put all my effort to live up to your expectations.

(Dr.Badugu.Suresh)