

**Dr. Ravibabu Mulaveesala**

Associate Professor,  
Department of Electrical Engineering,  
Indian Institute of Technology Ropar,  
Nangal Road, Rupnagar, Punjab, India-140001.

**Educational Qualifications**

**Ph.D., (InfraRed Imaging) (2007)**

Centre for Applied Research in Electronics, Indian Institute of Technology Delhi,  
New Delhi, India.

**M. Tech., (2000)**

National Institute of Technology Trichurapalli, Tamil Nadu, India.

**Research Interests**

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

**Research and Academic Experience**

- **Visiting Research Fellow, Chiba University, Japan.**
- **Assistant Professor (July 2007 to 29th June 2010),**  
Indian Institute of Information Technology, Design & Manufacturing  
Jabalpur.
- **Associate Professor (July 2010 to 29th Jan 2012),**  
Indian Institute of Information Technology, Design & Manufacturing  
Jabalpur.
- **Associate Professor (Presently Working),**  
Department of Electrical Engineering, Indian Institute of Technology Ropar.

**Editorial Board Member to Peer Reviewed Journals (selected):**

- Editor: Measurement Science and Technology (Institute of Physics).  
{Indexed: Web of Science & Scopus}
- Associate Editor: IEEE Sensors Journal (Institute of Electrical and  
Electronics Engineers). {Indexed: Web of Science & Scopus}
- Associate Editor: IEEE Access (Institute of Electrical and Electronics  
Engineers). {Indexed: Web of Science & Scopus}
- Associate Editor: IET Science, Measurement & Technology. {Indexed:  
Web of Science & Scopus}
- Associate Editor: IET Electronics Letters. {Indexed: Web of Science &

**Personal Information**

Nationality : *Indian*

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Web Page:

<http://www.iitrpr.ac.in/electrical/ravi>

Scopus}

- Associate Editor: Journal of Sensors and Sensor Systems. {Indexed: Web of Science & Scopus}
- Associate Editor: Heliyon Journal (Elsevier). {Indexed: Web of Science & Scopus} (20th Oct 2016 - 5th July 2019)
- Editor: Journal of Non destructive Testing & Evaluation.

#### Sponsored Research Grants:

External Sponsored Research Grants\* (From Last Five Years):

S.No	Title	Sponsoring Agency	Period	Approximate Amount (INR)
1	Matched filter approach for chirp excited infrared imaging for non-destructive characterization.	Science & Engineering Research Board (SERB)	2014-2017	46,000,00.00/-
2	Non-destructive testing of Carbon Fibre Reinforced Polymers (CFRP) using non-stationary thermal Imaging technique.	Ministry of Defense (AR&DB)	2014-2017	22,000,00.00/-
3	Depth resolution and sizing studies in Thermal Wave Detection And Ranging (TWDAR).	Science & Engineering Research Board (SERB)	2014-2016	30,000,00.00/-
4	The development of a portable THERMOgraphy-based health deTECTion system (THERMOTECT) In breast cancer screening.	Global Innovation & Technology Alliance	2017-2019	760,000,00.00/-

\*As as PI/Co-PI/Partner

Total Budget (Externally Funded Projects @ IRIL, IIT Ropar as PI/Partner/Co-PI): 836 Lakhs (Indian Rupees)

#### Administrative Experience

Member, Academic Senate, IIITDM Jabalpur

Co-ordinator, Science and Technology, IIITDM Jabalpur (2007-2008)

Convener, B.Tech Project Evaluation Committee, IIITDM Jabalpur (2008-2010)

Mess Warden, Hall 1, IIITDM Jabalpur (2008-2009)

Library ECE Co-ordinator, IIITDM Jabalpur (2008-2010)

Convener, B.Tech Medals and Prizes Selection Committee, IIITDM Jabalpur (2008-2009)

Co-ordinator, REPC, IIT Ropar (2012-2013)

Co-ordinator, ACUGS, IIT Ropar (2013-2014)

Co-ordinator, EED Time Table Incharge, IIT Ropar (2012-2013)

#### **Courses Taught**

Sensing: Methods, Devices and Applications (UG)

Optical Electronics and Optical Communications (UG)

Measurement Science and Technology (PG)

Industrial Imaging Techniques (PG)

Analog Electronics (UG)

Measurements and Instrumentation (UG)

Sensors & Mechatronics (UG)

Non-destructive Testing and Evaluation (PG)

#### **Research Laboratory Establishment**

InfraRed Imaging Laboratory(IRIL), IIITDM Jabalpur

InfraRed Imaging Laboratory(IRIL), IIT Ropar

#### **PhD Thesis Guidance**

1. Dr. Ghali Venkata Subbarao (2012 @ IIITDM Jabalpur)
2. Dr. Vanita Arora (2016 @ IIT Ropar)
3. Dr. Juned S M (2017 @ IIITDM Jabalpur) Co-supervised by Dr. M. Amarnath
4. Dr. Geetika Dua (2018 @ IIT Ropar)

#### **M.Tech Thesis Guidance**

Mr. M. Manupuran Co-supervised by Dr. M. Amarnath

Ms. Pooja Dubey

#### **Post Doctoral Researchers:**

Dr. Vanita Arora, Post-Doctoral Fellow.

#### **Patent**

1. A system and method for non-destructive characterization in solids and composites; Patent Number: 294805 (Granted).
2. Thermal imaging for identifying a defect in a material, Application no. 201911012086, LRN no: P3591-IN, 27/03/2019.

#### **Selected Publications in Refereed International Journals (Science Citation Index/Science Citation Index Expanded/Emerging Sources Citation**

### Index/Scopus Index Journals)

3. Kher, V. and **Mulaveesala, R.**, Probability of defect detection in pulse compression favourable frequency modulated thermal wave imaging (2019) *Electronics Letters*, 55(14), pp. 789-791.
4. Dua, G., **Mulaveesala, R.**, Kher, V., and Rani, A., Gaussian windowed frequency modulated thermal wave imaging for non-destructive testing and evaluation of carbon fibre reinforced polymers (2019) *Infrared Physics and Technology*, 98, pp. 125-131.
5. Kaur, K. and **Mulaveesala, R.**, Experimental investigation on noise rejection capabilities of pulse compression favourable frequency-modulated thermal wave imaging (2019) *Electronics Letters*, 55 (6), pp. 352-353.
6. Ahmad, J., Akula, A., **Mulaveesala, R.**, and Sardana, H.K., Barker coded thermal wave imaging for nondestructive testing and evaluation of steel material (2019) *IEEE Sensors Journal*, 19(2), pp. 735-742.
7. Ahmad, J., Akula, A., **Mulaveesala, R.**, and Sardana, H.K., An Independent component analysis based approach for frequency modulated thermal wave imaging for subsurface defect detection in steel sample (2019) *Infrared Physics and Technology*, 98, pp.45-54.
8. Arora, V., **Mulaveesala, R.**, Rani, A., and Sharma, A., Digitized frequency modulated thermal wave imaging for non-destructive testing and evaluation of glass fibre reinforced polymers, (2019), *Journal of Nondestructive Testing and Evaluation*, 34(1), pp. 23-32.
9. Dua, G., and **Mulaveesala, R.**, Applicability of active infrared thermography for screening of the human breast: a numerical study (2018) *Journal of Biomedical Optics*, 23(3), 037001.
10. Dua, G., and **Mulaveesala, R.**, Thermal wave imaging for non-destructive testing and evaluation of reinforced concrete structures (2018) *Insight: Non-Destructive Testing & Condition Monitoring*, 60(5), pp.1-5.
11. **Mulaveesala, R.**, Arora, V. Complementary coded thermal wave imaging scheme for thermal non-destructive testing and evaluation (2017) *Quantitative InfraRed Thermography Journal*, 14(1), pp. 45-53.
12. Arora, V., **Mulaveesala, R.** Application of Golay complementary coded excitation schemes for non-destructive testing of sandwich structures (2017) *Optics and Lasers in Engineering*, 93, pp. 36-39.
13. Dua, G., and **Mulaveesala, R.** Infrared thermography for detection and evaluation of bone density variations by non-stationary thermal wave imaging (2017) *Biomedical Physics & Engineering Express*, 3(1), 017006.
14. Suresh, B., Subhani S.K., Ghali, V.S., and **Mulaveesala, R.**, Amarnath, M., Subsurface detail fusion for anomaly detection in non-stationary thermal wave imaging (2017) *Insight: Non-Destructive Testing & Condition Monitoring*, vol. 59, No 10., pp. 553-558.
15. Arora, V., **Mulaveesala, R.**, Bison, P. Effect of Spectral Reshaping on Frequency Modulated Thermal Wave Imaging for Non-destructive Testing and Evaluation of Steel Material (2016) *Journal of Nondestructive Evaluation*, 35 (1), art. no. 15, pp. 1-7.
16. Siddiqui, J.A., Arora, V., **Mulaveesala, R.**, Muniyappa, A. Infrared Thermal

Wave Imaging for Nondestructive Testing of Fibre Reinforced Polymers (2015) *Experimental Mechanics*, 55 (7), pp. 1239-1245.

17. Arora, V., Siddiqui, J.A., **Mulaveesala, R.**, Muniyappa, A. Pulse compression approach to nonstationary infrared thermal wave imaging for nondestructive testing of carbon fiber reinforced polymers (2015) *IEEE Sensors Journal*, 15 (2), art. no. 6936841, pp. 663-664.
18. Dua, G., **Mulaveesala, R.**, Siddique, J.A. Effect of spectral shaping on defect detection in frequency modulated thermal wave imaging (2015) *Journal of Optics* (United Kingdom), 17 (2), art. no. 025604.
19. Siddiqui, J.A., Arora, V., **Mulaveesala, R.**, Muniyappa, A. Modelling of the frequency modulated thermal wave imaging process through the finite element method for non-destructive testing of a mild steel sample (2015) *Insight: Non-Destructive Testing and Condition Monitoring*, 57 (5), pp. 266-268.
20. Arora, V., **Mulaveesala, R.** Pulse compression with Gaussian weighted chirp modulated excitation for infrared thermal wave imaging (2014) *Progress in Electromagnetics Research Letters*, 44, pp. 133-137.
21. Arora, V., **Mulaveesala, R.**, Siddiqui, J.A., Muniyappa, A. Hilbert transform-based pulse compression approach to infrared thermal wave imaging for sub-surface defect detection in steel material (2014) *Insight: Non-Destructive Testing and Condition Monitoring*, 56 (10), pp. 550-552.
22. Dua, G., **Mulaveesala, R.** Applications of Barker coded infrared imaging method for characterisation of glass fibre reinforced plastic materials (2013) *Electronics Letters*, 49 (17), pp. 1071-1073.
23. **Mulaveesala, R.**, Ghali, V.S., Arora, V. Applications of non-stationary thermal wave imaging methods for characterisation of fibre-reinforced plastic materials (2013) *Electronics Letters*, 49 (2), pp. 118-119.
24. Subbarao, G.V., **Mulaveesala, R.** Quadratic frequency modulated thermal wave imaging for non-destructive testing (2012) *Progress In Electromagnetics Research M*, 26, pp. 11-22.
25. **Mulaveesala, R.**, Panda, S.S.B., Mude, R.N., Amarnath, M. Non-destructive evaluation of concrete structures by non-stationary thermalwave imaging (2012) *Progress in Electromagnetics Research Letters*, 32, pp. 39-48.
26. Ghali, V.S., Panda, S.S.B., **Mulaveesala, R.** Barker coded thermal wave imaging for defect detection in carbon fibre-reinforced plastics (2011) *Insight: Non-Destructive Testing and Condition Monitoring*, 53 (11), pp. 621-624.
27. Ghali, V.S., **Mulaveesala, R.**, Takei, M. Frequency-modulated thermal wave imaging for non-destructive testing of carbon fiber-reinforced plastic materials (2011) *Measurement Science and Technology*, 22 (10), art. no. 104018.
28. Ghali, V.S., **Mulaveesala, R.** Comparative data processing approaches for thermal wave imaging techniques for non-destructive testing (2011) *Sensing and Imaging*, 12 (1-2), pp. 15-33.
29. **Mulaveesala, R.**, Venkata Ghali, S. Coded excitation for infrared non-destructive testing of carbon fiber reinforced plastics (2011) *Review of Scientific Instruments*, 82 (5), art. no. 054902.
30. **Mulaveesala, R.**, Ghali, V.S. Cross-correlation-based approach for thermal non-destructive characterisation of carbon fibre reinforced plastics (2011) *Insight: Non-Destructive Testing and Condition Monitoring*, 53 (1), pp. 34-36.

31. Ghali, V.S., **Mulaveesala, R.** Frequency modulated thermal wave imaging techniques for non-destructive testing (2010) *Insight: Non-Destructive Testing and Condition Monitoring*, 52 (9), pp. 475-480.
32. Ghali, V.S., Jonnalagadda, N., **Mulaveesala, R.** Three-dimensional pulse compression for infrared nondestructive testing (2009) *IEEE Sensors Journal*, 9 (7), pp. 832-833.
33. **Mulaveesala, R.**, Vaddi, J.S., Singh, P. Pulse compression approach to infrared nondestructive characterization (2008) *Review of Scientific Instruments*, 79 (9), art. no. 094901.
34. **Mulaveesala, R.**, Awasthi, S., Tuli, S. Infrared non-destructive characterization of boiler tube (2008) *Sensor Letters*, 6 (2), pp. 312-318.
35. **Mulaveesala, R.**, Tuli, S. Theory of frequency modulated thermal wave imaging for nondestructive subsurface defect detection (2006) *Applied Physics Letters*, 89 (19), art. no. 191913.
36. **Mulaveesala, R.**, Pal, P., Tuli, S. Interface study of bonded wafers by digitized linear frequency modulated thermal wave imaging (2006) *Sensors and Actuators, A: Physical*, 128 (1), pp. 209-216.
37. **Mulaveesala, R.**, Tuli, S. Digitized frequency modulated thermal wave imaging for nondestructive testing (2005) *Materials Evaluation*, 63 (10), pp. 1046-1050.
38. **Mulaveesala, R.**, Tuli, S. Implementation of frequency-modulated thermal wave imaging for non-destructive sub-surface defect detection (2005) *Insight: Non-Destructive Testing and Condition Monitoring*, 47 (4), pp. 206-208.
39. Tuli, S., **Mulaveesala, R.** Defect detection by pulse compression in frequency modulated thermal wave imaging (2005) *Quantitative InfraRed Thermography Journal*, 2 (1), pp. 41-54.

#### Selected Publications in Peer Reviewed International Conferences

40. **Mulaveesala R** and Tuli S, Electro-thermal modeling and Matlab-Simulink simulation of lock-in thermography for non-destructive characterization, 16th *WCNDT Proceedings* (2004), Canada, pp. 170.
41. Tuli S and **Mulaveesala R**, Frequency-modulated wave thermography for non-destructive testing, *QIRT Proceedings* (2004), Brussel, pp. H.6.1-6.6.
42. **Mulaveesala R** and Tuli, S., "Phase sensitive digitized frequency modulated thermal wave imaging and pulse compression for NDE applications," *Proceedings of SPIE* (2006), Vol. 6205, 620515.
43. Awasthi, S., **Mulaveesala R** and Tuli, S., "Thermal nondestructive evaluation of scaling in boiler tubes," *Proceedings of SPIE* (2007), Vol. 6541, 654114.
44. **Mulaveesala R** and Takei M, Modeling and simulation for frequency modulated thermal wave imaging for non destructive testing, *WCIPT Proceedings* (2010), Sept. 6-9, 2010, Beijing (China).
45. Ghali V S, **Mulaveesala R** and Takei M, Cross-correlation based compression technique for frequency modulated thermal wave imaging, *QIRT Proceedings* (2010), Quebec, Canada (2010), p-129.

46. Amarnath M, **Mulaveesala R**, Subbarao G. V. and Prasanna Kumar V Sai, Application of infrared imaging for subsurface sensing of glass fiber reinforced plastic materials, [PFAM-XIX proceedings](#), 14 -17 (2011), Auckland, New Zealand.
47. **Mulaveesala, R.**, Subbarao, V, Ghali., Lokendra, K, Balyan and, Subir, S, Lamba., Signal and image processing techniques for digitized frequency modulated thermal-wave imaging for characterization of fiber-reinforced plastics", [Proc. SPIE](#) 8013, 80130R (2011). doi:10.1117/12.882047.
48. **Mulaveesala, R.**, V.S. Ghali., and Amarnath M., Matched excitation for thermal nondestructive testing of carbon fiber reinforced plastic materials, [Proc. SPIE](#), 8354-7 (2012).
49. **Mulaveesala, R.**, Venkata Nagarjuna P., Dadda Ravi and Amarnath M., Non-stationary thermal wave imaging techniques for inspection of wooden materials , [Proc. SPIE](#), 8354-11 (2012).
50. **Mulaveesala, R.**, Juned A. Siddiqui., V. Arora., V.S. Ghali and Amarnath M., Nondestructive testing and evaluation of composites by non-invasive IR Imaging techniques, [Proc. SPIE](#), 8705-33 (2013).
51. **Mulaveesala, R.**, V.S. Ghali., V. Arora., Juned A. Siddiqui and Amarnath M., Theory, modeling, and simulations for thermal wave detection and ranging, [Proc. SPIE](#), 8705-34 (2013).
52. **Mulaveesala, R.**, V.S. Ghali., V. Arora., Juned A. Siddiqui and Amarnath M., Recent advances in thermal wave detection and ranging for non-destructive testing and evaluation of materials, [Proc. SPIE](#), 8705-35 (2013).
53. Akula, A., **R. Mulaveesala.**, S. Kumar., S. Tewary., H. K. Sardana., and R. Ghosh., Pulse Compression Approach for frequency modulated thermal wave imaging based subsurface defect analysis, [Proc. APCNDT](#), CP-217, (2013).
54. S. Tewary.,, A. Akula., R. Ghosh., **R. Mulaveesala.**, S. Kumar., and H. K. Sardana, Detection of subsurface defects using active infrared thermography, [Proc. APCNDT](#), CP-250, (2013).
55. Ghali V.S., S. Subhani., and **R. Mulaveesala.**, Applications of feature separation based subsurface analysis for frequency modulated thermal wave imaging, [Proc. APCNDT](#), CP-65, (2013).
56. **R. Mulaveesala.**, Non-Stationary Thermal Wave Imaging for Non-Destructive Testing and Evaluation, [Proc. APCNDT](#), (2013) (Invited).
57. **Mulaveesala, R.**, V. Arora., Juned A. Siddiqui., and Amarnath M., Numerical approach to binary complementary Golay coded infrared thermal wave imaging, [Proc. SPIE](#), 9105- 91050T,(2014).
58. **Mulaveesala, R.**, Juned A. Siddiqui., V. Arora., and Amarnath M., Nonstationary thermal wave imaging for nondestructive testing and evaluation, [Proc. SPIE](#), 9105, 91050R,(2014).
59. **Mulaveesala, R.**, V.S. Ghali., V. Arora., Juned A. Siddiqui and Amarnath M.,

Pulse compression approach to digitized frequency modulated infrared imaging for nondestructive testing of carbon fibre reinforced polymers, [Proc. SPIE](#), 9105, 91050M,(2014).

60. Dua, G., Ghali, V.S., **Mulaveesala, R.**, "Testing and evaluation of glass fiber reinforced polymers by thermal wave imaging," IEEE international conferences on Signal Processing And Communication Engineering Systems ([SPACES](#))-2015, 2nd-3rd Jan. 2015, PP. 527-530, (2015).
61. Arora, V., **Mulaveesala, R.**, Ghali , V. S., "Non-destructive testing of steel sample by non-stationary thermal wave imaging," IEEE international conferences on Signal Processing And Communication Engineering Systems ([SPACES](#))-2015, 2nd-3rd Jan. 2015, PP. 527-530, (2015).
62. **Mulaveesala, R.**, Juned A. Siddiqui., V. Arora., G. Dua., Ghali , V. S., and Amarnath M., Testing and evaluation of concrete structures by thermal wave imaging, [Proc. SPIE](#), 9485-18, (2015).
63. **Mulaveesala, R.**, V. Arora., Juned A. Siddiqui., Ghali , V. S., and Amarnath M., Signal and image processing techniques for testing and evaluation of glass fibre reinforced polymers, [Proc. SPIE](#), 9485-32, (2015).
64. **Mulaveesala, R.**, G. Dua., Juned A. Siddiqui., Ghali , V. S., and Amarnath M., A numerical approach for testing and evaluation of mild steel material by thermal wave imaging, [Proc. SPIE](#), 9485-36,(2015).
65. Arora., V., and **Mulaveesala, R.**, Complimentary Coded Thermal Wave Imaging Scheme for Thermal Non-Destructive Testing and Evaluation, [QIRT Asia-2015](#), (2015).
66. Siddiqui, J. A., Arora., V., **Mulaveesala, R.**, Ghali, V. S., and Muniyappa, A., Non-Destructive Testing and Evaluation by Thermal Wave Detection and Ranging, [QIRT Asia-2015](#), (2015).
67. Dua, G., and **Mulaveesala, R.**, Advances in Non-Stationary Frequency Modulated Thermal Wave Imaging for Non-Destructive Testing and Evaluation, [QIRT Asia-2015](#), (2015).

#### Book/Book Chapter

Book:

68. R Mulaveesala and V Arora, Thermal non-destructive testing and evaluation of solids; A novel time domain analysis approach for TNDT, LAP LAMBERT Academic Publishing,2018.

Book Chapter:

69. R Mulaveesala, G Dua and V Arora, Active thermal wave imaging for non-destructive testing and evaluation of concrete structures, IntechOpen Limited, UK, 2019.

### **Membership in Professional Bodies**

- Life Member of Indian Society for Non-destructive Testing
- Life Member of Thermo-physical Society of India

### **Awards, Honors and Prizes (selected)**

- Institute Level Best Project (Postgraduate Level) Award for Open House-I<sup>2</sup> Tech 2006 (IIT Delhi Alumni Award).
- Referee to European Research Council Starting Grants (Physical Sciences and Engineering).
- Expert Committee Member for Innovation Fund Competition of Canada Foundation for Innovation (CFI).
- Referee to Indo-French Centre for the Promotion of Advanced Research (IFCPAR/ CEFIPRA)
- Member, National Governing Council: Indian Society for Non-Destructive Testing (ISNT)
- Referee to European Research Council Starting Grants (Physical Sciences and Engineering).
- Referee to Indo-French Centre for the Promotion of Advanced Research (IFCPAR/ CEFIPRA)
- Member, National Governing Council: Indian Society for Non-Destructive Testing (ISNT)
- Expert member for Senior Scientific/Technical Officers Selection Committee of Department of Atomic Energy (DAE), Govt. of India.
- Reviewer to SERB Project Proposals, Department of Science & Technology (DST), Govt. of India.
- Reviewer to National Project Implementation Unit (NPIU), MHRD, Govt. of India.
- Invited Talk on Non-destructive Evaluation of Composites at GE (John F. Welch Technology Centre) Composites Workshop: March 16th-18th at JFWTC, Bangalore, India, 2015.
- Invited Talk at Defence Metallurgical Research Laboratory (DMRL) on Advanced Infrared Thermography, Ministry of Defence, Govt. of India, 2015.
- Invited Presentation on Non-destructive Testing of Composites by Naval Science & Technological Laboratory, Ministry of Defence, Govt. of India.
- Keynote/Invited Speaker: The first QIRT-ASIA conference on quantitative infrared thermography-2015.
- Invited Talk @ National conference on Non-destructive Evaluation (NDE-2015), ISNT, Hyderabad, India.
- Plenary Talk @ IEEE International conference on Signal Processing And Communication Engineering Systems (SPACES 2015).

- Invited Presentation on Acquisition, Understanding and Applications of Multiscale Biomedical Images by Information Technology Research Academy, Dept. of Information Technology, Ministry of Communications and Information Technology, Govt. of India.
- Invited Presentation on Frequency Modulated Thermal Wave Imaging for Non destructive Testing of Solids, Beihang University, Beijing, China.
- Invited Presentation on Research on Non Destructive Testing by Thermal Diffusion Waves by Nihon University, Tokyo Japan.
- Invited to deliver lectures for Level II Training and Certification course on Infrared Thermography by Indian Society for Nondestructive Testing (kalpakkam chapter), Feb-2015.
- Invited to deliver lectures on Infrared Thermography by Indian Society for Nondestructive Testing (thiruvananthapuram chapter), October-2015.
- Invited Presentation on Frequency Modulated Thermal Wave Imaging and Its Applications at 14th Asian Pacific Conference on Non-destructive Testing 2013.
- Invited to deliver Series of Lectures at National level Workshop on Durability and Performance Assessment of the Emerging Advanced Materials by Non-destructive Evaluation.
- Invited to deliver Lectures in the Training Course on Digital Signal Processing at the Centre for Continuing Education, IIT Roorkee 2103.
- IEEE Advisory Committee Member: International Conference on Control, Instrumentation, Communication & Computational Technologies (ICCICCT 2014).
- IEEE Advisory Committee Member: International Multi-conference on Automation, Computing, Communication, Control and Compressed Sensing-2013.
- Advisory Committee Member: International Conference on Technical Challenges in Instrumentation, Computer Science, Civil and Mechanical, Electronics and Electrical Engineering (ICCECON-2015).
- Advisory Committee Member: International Conference on innovations in Computer, Communication and Control technologies-2014.
- Advisory Committee Member: International Conference on Control, Instrumentation, Communication & Computational Technologies (ICCICCT)-2015.
- Technical Programme Committee Member: International Conference on Advances in Computing, Communications and Informatics-2015.
- Invited Talk @ National conference on Non-destructive Evaluation (NDE-2014), ISNT, PUNE, India.
- Co-ordinator for special issue on Infrared Thermography, Journal of Non destructive Testing & Evaluation, Vol.12(2), 2013.
- Session Chair: NDE using Thermography - 2 @ Asian Pacific Conference on Non-destructive Testing-2013, Mumbai, India, November 2013.

#### **Reviewer to Peer Reviewed Journals (selected):**

- Proceedings of the Royal Society A: Mathematical, Physical & Engineering Sciences
- AIP: Applied Physics Letters
- AIP: Review of Scientific Instruments
- AIP: Journal of Applied Physics
- IOP: Measurement Science & Technology
- IOP: Journal of Physics D: Applied Physics
- IEEE: Transactions on Terahertz Science and Technology
- IEEE: Transactions on Industrial Electronics
- IEEE: Transactions on Industrial Informatics
- IEEE: Transactions on Circuits and Systems I: Regular Papers
- IEEE: Transactions on Instrumentation and Measurement
- IEEE: Transactions on Medical Imaging
- IEEE: Transactions on Education
- IEEE: Sensors Journal
- IEEE: Access
- IEEE: Photonics Journal
- IEEE/OSA: Journal of Lightwave Technology
- IET: Electronics Letters
- IET: Image Processing
- Elsevier: Infrared Physics & Technology
- Elsevier: Non-destructive Testing & Evaluation International
- Elsevier: Journal of Physics & Chemistry of Solids
- Elsevier: Materials Letters
- Elsevier: Composites Part B: Engineering
- Elsevier: Corrosion Science
- Elsevier: International Journal of Heat and Mass Transfer
- Elsevier: International Journal of Thermal Sciences
- Elsevier: Mechanical Systems and Signal Processing
- Elsevier: Polymer Testing
- Elsevier: Chemometrics and Intelligent Laboratory Systems
- Elsevier: Journal of Tissue Viability
- Elsevier: Automation in Construction
- Elsevier: Heliyon
- Elsevier: Computerized Medical Imaging and Graphics
- Elsevier: Journal of Advanced Research
- Elsevier: Measurement
- Springer: Journal of Non-destructive Evaluation
- Springer: Opto-Electronics Review
- Springer: International Journal of Thermophysics
- Springer: Pure and Applied Geophysics
- Taylor & Francis: Quantitative InfraRed Thermography Journal
- Taylor & Francis: IETE Journal of Research

- ASNT: Materials Evaluation
- ASTM: Journal of Testing and Evaluation
- BINDT: Insight: Non-Destructive Testing and Condition Monitoring
- SPIE: Journal of Electronic Imaging
- SPIE: Optical Engineering
- ACI: Structural Journal
- ACI: Materials Journal
- PIER: Progress in Electromagnetic Research & Journal of Electromagnetic Waves and Applications
- ETRI Journal
- DRDO: Defence Science Journal

**Citations:**

- Scopus h-index: 19 (Scopus Citations 966)
- Web of Science h-index: 14 (Web of Science Citations 615; Average Citations per Year: 41; Average Citations per Item: 19.22)
- Google Scholar h-index: 20 (Citations 1236)
- Google Scholar i-10 index: 25 (Citations 1236)
- Research Gate (Citations 879)
- ORCID
- Mendeley (Citations 966)
- ResearcherID

**Under Graduate Student Supervision:**

**B.Tech Projects Supervision (Completed): 15 (45 Students)**

First B.Tech (undergraduate) Project: (Citation in US Patent)

**PhD Thesis Evaluations** (in the field of Non-invasive Imaging/Non-destructive Testing): 12

**Integrated M.Tech PhD Thesis Evaluations** (in the field of Non-invasive Imaging/Non-destructive Testing): 2

**MS (By Research) Thesis Evaluation** (in the field of Non-invasive Imaging/Non-destructive Testing): 1