

## Detailed CV

Name: **Dr.Naveen Kumar S K**

Educational Qualification: M.Sc., Ph.D., PGDSD

Designation: Professor and Chairman



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Research Areas:

- Nanomaterials
- Thin film Semiconductors
- Advanced Materials
- Nanoelectronics
- Nanoscale Physics
- Biomedical Electronics
- Embedded System
- Cyber Security
- Internet of Things (IoT)
- Data Science

**Professional Teaching Experience:**

Sl. No	Designation	College/University/Institution
1	Assistant Professor	Department of Electronics University of Mysore
2	Professor	Department of Electronics Mangalore University

**Research Guidance (M.Phil. /Ph.D.):****Completed students' list:**

Sl. No	Name of Candidates	Subject	Year of Award
1	Uma Ullas Pradhan	Electronics	2013
2	Panduranga H.T	Electronics	2014
3	Kiran S	Electronics	2019
4	Murty Mahadeva Naik	Electronics	2019
5	Sharath Kumar B S	Electronics	2019
6	Omprakash S S	Electronics	2020

## Ongoing Registered Students' list

Sl. No	Name of Candidates	Subject	Year of Registration	Status
1	Almaw Ayele Aniley	Electronics	2016	Submitted
2	Santhosh Kumar N	Electronics	2015	Submitted
3	Prathima Bhat	Electronics	2016	Pursuing
4	Akshaya Kumar A	Electronics	2017	Pursuing

## Research Projects (List) (if applicable)

### Completed:

1. Studies on Optical, Electrical and Thermal Properties of Pure and Mixture of Liquid Crystal.  
Funding agency: University of Mysore (UM)  
Total cost: 50,000/-
2. Implementation of Image Encryption Algorithm on FPGA using Lab view.  
Funding agency: University Grant Commission (UGC)  
Total cost: 8, 50,000/-
3. Fabrication of a Thin Film Moisture Sensor for Automated irrigation system.  
Funding agency: Vision Group of Science and Technology (VGST)  
Total cost: 5, 00,000/-
4. Indo-US Bilateral Research project: The fabrication of Nanoparticles based soil condition testing sensor and development of soil condition monitoring system.  
Funding agency: University Grant Commission (UGC)  
Total cost: Rs. 1, 14, 00,000/-

## **Professional Collaboration**

### **International:**

1. Prof. Shekhar Bhansali, Alcatel-Lucent Professor is with Florida International University Florida International University (FIU),
2. Renny Edwin Fernandez is with Department of Engineering, Norfolk State University, USA.
3. Ajit Khosla is with Department of Mechanical Systems Engineering, Yamagata University, Yonezawa, Japan
4. Prof. Ravinder Dahiya is with Electronics & Nanoscale Engineering, University of Glasgow, and U K under Newton PhD UK - India Placements 2020 program.

## **Research Journal Publications: 162**

### **International/ National/ Book chapters / Translations published: 76**

1. Fabrication of ultrasensitive hexagonal disc structured ZnO thin film sensor to trace nitric oxide, Pratima Bhat, Naveen Kumar S K and P Nagaraju, Journal of Asian Ceramic Societies, DOI: <https://doi.org/10.1080/21870764.2020.1848036>
2. Real Time Sensing of Soil Potassium Levels Using Zinc Oxide-Multiwall Carbon Nanotube Based Sensors, Akshaya Kumar A, Naveen Kumar SK and RE Fernandez, IEEE Transactions on Nano biosciences. DOI: 10.1109/TNB.2020.3027863.
3. Real Time Analysis of Biphasic Temperature Pattern of BBT Using NiMn<sub>2</sub>O<sub>4</sub> Nanocomposite Thermistor, Naveen Kumar SK, Akshaya Kumar A, RE Fernandez, Ajit Khosla, Journal of The Electrochemical Society, 167(13) (2020).
4. Structural, optical and conductivity study of hydrothermally synthesized TiO<sub>2</sub> nanorods, N Santhosh Kumar, S K Naveen Kumar, and L Yesappa, Materials Research Express, Volume 7, Number 1 (2020)
5. Synthesis and characterization of ZnO-MWCNT nanocomposites for 1 butanol sensing applications at room temperature, Pratima Bhat, Naveen Kumar S K and P Nagaraju, Physica B: Condensed Matter 570(2019) 139-147
6. Hydrothermal Growth of Zinc Oxide (ZnO) Nanorods (NRs) on Screen Printed IDEs for pH Measurement Application, Akshaya Kumar A Naveen Kumar SK, Almaw Ayele Aniley, RE Fernandez, S Bhansali, Journal of The Electrochemical Society(JES) 166 (9), B3264-B3274(2019)
7. Thin Film Dual Probe Heat Pulse (DPHP) Micro Heater Network for Soil Moisture Content Estimation in Smart Agriculture, Almaw Ayele Aniley, Naveen Kumar SK, Akshaya Kumar A, RE Fernandez, S Bhansali, Journal of The Electrochemical Society(JES) 166 (2), B63-B66(2019)

8. Optimization of TiO<sub>2</sub>/MWCNT composites for efficient dye sensitized solar cells S. Kiran · S. K. Naveen Kumar · K. C. Yogananda · Dinesh Rangappa, *Journal of Materials Science: Materials in Electronics* (2018) 29:12681–12689
9. PANI/ZnO Hybrid Nanocomposites TFT for NAND Gate Applications, Omprakash S.S, Naveen Kumar S K, *Materials Today Proceedings* 5 (2018) 10827-10832
10. Titanium dioxide and Zinc oxide as a Dielectric Materials for Applications in TFT, Omprakash S.S, Naveen Kumar S K, *Materials Today Proceedings* 5 (2018) 10833-10838
11. Fabrication, Characterization and Comparison of Nanocrystalline NiMn<sub>2</sub>O<sub>4</sub> and NiZn<sub>0.2</sub>MnO<sub>4</sub> NTCR Ceramic Thermistor Powders, Akshaya Kumar A, Almaw Ayele Aniley, S.K. Naveen Kumar S K, *Journal of Nanoscience and Technology* 5 (1), 603–606 (2019).
12. Hydrothermal Growth of Zinc Oxide (ZnO) Nanorods (NRs), Structural, and Chemical Composition Studies for pH Measurement Sensor Applications, Naveen Kumar S K, Akshaya Kumar A, RE Fernandez, S Bhansali, *ECST* 88 (1), 437-447(2019)
13. Integration of interdigitated electrodes (IDEs) with ZnO nanoflakes (Nfs) active layers, Aliyana Akshaya Kumar A and Sindhagatta Kalappa Naveen Kumar , *AIP Conf. Proc.* 2244, 070008-1–070008-4; (2020)
14. Solution-processed amorphous zinc oxide thin film transistor based inverter, Sulibele Srinath Omprakash, and Sindhagatta Kalappa Naveen Kumar, *AIP Conf. Proc.* 2244, 100008-1–100008-4 (2020).
15. Effect of annealing temperature on microstructure, optical, morphology and gas sensing characterization of nano disc ZnO thin films, Pratima Bhat, Sindhagatta Kalappa Naveen Kuma, and Pothukanuri Nagaraju, *AIP Conf. Proc.* 2244, 110008-1–110008-4 (2020).
16. Synthesis, characterization of TiO<sub>2</sub> nanorods based sensor for EEG applications, Ningaiah Santhosh Kumar, and Sindhaghatta Kalappa Naveen Kumar, *AIP Conf. Proc.* 2244, 070029-1–070029-4 (2020).
17. ZnO Nanorods Based Miniature Sensor Networks for Continuous Monitoring of Soil pH in Smart Agriculture, **Akshaya Kumar A**, S K Naveen Kumar, Shekhar Bhansali, Ajit Khosla, 237th ECS Meeting with the 18th International Meeting on Chemical Sensors (2020), DOI: 10.1149/MA2020-01292217mtgabs
18. Nanoceramic Powder Based Thermometer for Basal Body Temperature Monitoring System to Estimate Ovulation “Megha M, S.K Naveen Kumar, **Akshaya Kumar A** 237th ECS Meeting with the 18th International Meeting on Chemical Sensors (2020), DOI: 10.1149/MA2020-01271962mtgab.
19. Assimilation of Interdigitated Electrodes (IDEs) with ZnO Nanorods (NRs) for Potassium Measurement Application, S K Naveen Kumar, **Akshaya Kumar A**, Shekhar Bhansali, Ajit Khosla, 237th ECS Meeting with the 18th International Meeting on Chemical Sensors (2020), DOI: 10.1149/MA2020-01292218mtgabs
20. Nanoceramic NiMn<sub>2</sub>O<sub>4</sub> Powder-Based Resistance Thermometer for Soil Temperature Measurement Application in Agriculture, Naveen Kumar S.K, Almaw Ayele Aniley, Akshaya Kumar A, RE Fernandez, S Bhansali, *ECST* 88 (1), 455-470(2019).
21. Preparation and Thickness Optimization of TiO<sub>2</sub>/Nb<sub>2</sub>O<sub>5</sub> Photoanodes for Dye Sensitized Solar Cells, S. Kiran and S. K. Naveen Kumar, *Materials Today Proceedings* (2019).

22. Synthesis and Characterization of ZnO Nano Discs Using Wet Chemical Method for Sensing Applications Pratima Bhat, Uma Ullas Pradhan, S.K.Naveen Kumar,, Materials Today Proceedings.(2018).
23. Development of Nanocomposite Based Miniaturized S-band Antenna for Novel Substrate Materials, C.K. Venkatesh, S.K.Naveen Kumar, Materials Today Proceedings.(2018)
24. Fabrication of Flexible Metal Oxide Thin Film Transistors by Indigenously Developed Spray Pyrolysis Unit, Omprakash S S and Naveen Kumar S.K, ECST 88 (1), 129-138(2019).
25. Advanced Sensor Materials Based Real-Time Soil Moisture Content and Temperature Monitoring Using IoT Technology in Smart Agriculture, , Almaw Ayele Aniley, Naveen Kumar SK, Akshaya Kumar A, Indian Journal of Environmental Protection(IJEP) 39 (7), 639-644.
26. Fabrication of Silver Doped ZnO Nanosensor for self-Design Glucose Monitoring System, S. K. Naveen Kumar, K. C. Gayithri, S. Kiran, International Journal of Advanced Information Science and Technology, Vol 31, PP 153-156, (2014).
27. The Significant role of nano composites on the performance of antenna substrate, C. K. Venkatesh, S. K. Naveen Kumar, International Journal of Advanced Information Science and Technology, Vol 31, PP 102-106, (2014).
28. Synthesis and studies of Nanoporous TiO<sub>2</sub> using Self Designed low cost Magnetic Stirrer with Hot Plate, S. Kiran, S. K. Naveen Kumar, International Journal of Advanced Information Science and Technology, Vol 31, PP 112-114, (2014).
29. An approach to design a rectangular micro strip patch antenna in S band by LM Model, Devaraja Naik L, Murthi Mahadev Naik G, Naveen Kumar S K, International Journal of Electronic and Communication Engineering Research, Vol.4, No.2, 2014.
30. Thin film dry Electrocardiogram sensor using spin coated Aluminum doped Titanium dioxide as a dielectric material. Uma Ullas Pradhan, and Naveen Kumar S K. Applied Physics Letters (Accepted)
31. Design and Development of Rectangular Microstrip antenna for quad and Triple band Operation, Naveen kumar S.K, S.N. Mulgi, International Journal of Electronics and Communication Engineering and Technology (IJECET) Vol 5, pp 132-138, (2013)
32. Synthesis and Characterization of Silver Doped ZnO Nanoparticles, Santhosh Kumar N, Kiran S, Naveen Kumar S K, Sharanappa, International Journal of Nanoscience and Nanotechnology Volume 3, Number 3(2013).
33. Studies on Structural, Optical and Mechanical properties of Tio<sub>2</sub> thin film Uma Ullas Pradhan, and Naveen Kumar S K. Archives of physics Vol 2, No 4 , 121- 127, (2011).
34. Humidity Sensing Properties of Tio<sub>2</sub>-Sno<sub>2</sub> thin films fabricated using spin coating Technique. Uma Ullas Pradhan, and Naveen Kumar S K. Archives of physics Vol 2, No 3 ,56-59 (2011).
35. Synthesis and Characterization of Tio<sub>2</sub> Nanoparticles using chemical route, Uma Ullas Pradhan, and Naveen Kumar S K. International Journal of Nanotechnology and Applications, Vol 5, No 2, 117-122, (2011).

36. Investigation of Aluminum doped and undoped  $\text{TiO}_2$  as a capacitive Sensor Uma Ullas Pradhan, and Naveen Kumar S K. International Journal of Semiconductor Science and Technology, Vol 5, No 2 ,117- 122, (2011).
37. Characterization of Titanium dioxide thin film fabricated using spin coating Technique. Uma Ullas Pradhan, and Naveen Kumar S K. Optoelectronics and advanced materials, Vol 5, No7, 799-801, (2011).
38. Mesomorphic phases in the mixture of the two non-mesogenic compounds, Nagappa, S.K. Naveen kumar, P.Nagraj Mol. Cryst. Liq cryst. Vol 409, PP 1-8, (2004).
39. Micellar nematic lyo phase in the binary mixtures of two non-mesogenic compounds. S.K Naveen Kumar, Nagappa and K.M. Loathe Rai, Liquid crystal. Vol 30 , PP 1-5, ( 2003).
40. Variation of the entropy of the transition in the nematic mixture, S. K Naveen Kumar, K.N. Jagadish, Nagappa; Mol. Cryst . Liq cryst. 366,239 (2001).
41. Soil temperature sensors in agriculture and the role of nanomaterials in temperature sensor preparation. Almar Ayele Aniley, Naveen Kumar S K and Akshaya Kumara A, International Journal of Engineering and Manufacturing Science. ISSN 2249-3115 Volume 7, Number 2 (2017), pp. 363-372
42. Review Article SOIL MOISTURE SENSORS IN AGRICULTURE AND THE POSSIBLE APPLICATION OF NANOMATERIALS IN SOIL MOISTURE SENSORS FABRICATION. Almar Ayele Aniley, Naveen Kumar S K and Akshaya Kumara A, International Journal of Advanced Engineering Research and Technology (IJAERT) Volume 6 Issue 1, January 2018, ISSN No.: 2348 – 8190
43. Slotted UWB Antenna for Bandwidth and Gain Enhancement Mr. Murthi Mahadeva Naik G, Ms. Audre Arlene A, Dr. Naveen Kumar S K, International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395 -0056 Volume: 03 Issue: 07 | July-2016.
44. Proximity Fed Antenna with Partial Ground Structure for Wideband Applications, Mr. Murthi Mahadeva Naik G, Maheshwari B, Dr. Naveen Kumar S K, International Journal of Engineering Research and Management (IJERM) ISSN: 2349- 2058, Volume-03, Issue-05, May 2016.
45. An UWB Antenna for WiMAX and WLAN Applications with Dual Notch- Bands, Mr. Murthi Mahadeva Naik G, Mr. Mahalingappa V, Dr. Naveen S K International Journal of Engineering Research and Management (IJERM) ISSN: 2349- 2058, Volume-03, Issue-06, June 2016
46. MSP Antenna for RADAR with Bandwidth and Gain Enhancement, Mr. Murthi Mahadeva Naik G, Ms. Audre Arlene A, Dr. Naveen Kumar S K, International Journal of Engineering Research And Management (IJERM) ISSN : 2349- 2058, Volume-03, Issue-06, June 2016.
47. Comprehensive Review on pH and Nutrients Detection Sensitive Materials and Methods for Agriculture Applications, Akshaya Kumar A and Naveen Kumar S K, Sensor Letters 17 (9), 663–670 (2019).
48. Fabrication of interdigitated electrodes (IDEs) modified with sensitive layers of ZnO nanorods and nanoflowers, Akshaya Kumar A and Naveen Kumar S. K, AIP Proceedings 2162 (020076), 1-6 (2019)

49. Chaos based image encryption using expand-shrink concept, Naveen Kumar S K, Panduranga H T and Kiran, International Journal of Informatics and Communication Technology. Vol 13, No 2, (2014).
50. Image encryption based on permutation using chaotic map and Latin Square Image Cipher, H.T Panduranga, Naveen Kumar S K, Kiran, Eur. Phys. J. Special topics, Springer. Vol. 1140, PP.1-15, (2014).
51. Selective image encryption for Medical and Satellite Images. Panduranga H.T, Naveen kumar S.K, International Journal of Engineering and Technology (IJET) Vol 5, pp 117-123, (2013)
52. Hardware and software co-simulation of the multiple image Encryption technique using The Xilinx system Generator, Panduranga H.T and Naveen Kumar S.K, Sharath Kumar H.S, International Journal of Information Processing System, Vol 9, No.3 (2013)
53. Gesture Based Image Encryption using Modified Resistance Coding, Naveen Kumar S K, Panduranga H T, Kiran, International Journal of information processing, 8(2), 47-53, (2014).
54. Two Stage combinational Approach for Image Encryption, Sharath Kumar H.S, Panduranga H.T and Naveen Kumar S.K, International Journal on Advnace in computing and information Technology, pp 843-849 Springer verlog (2012).
55. An Image Encryption Approach using Pixel and Position Manipulation Technique International Journal of Computer Applications (IJCA) (0975 – 8887), pp 29-33 (2012).
56. Advanced Partial Image Encryption using Two-Stage Hill Cipher Technique Panduranga H.T and Naveen Kumar S.K, International Journal of Computer Applications (0975–8887) Volume 60, pp 14-19 (2012).
57. A Noval Image Encryption Technique Uing Multi-Wave based Carrier Image Panduranga H.T, Naveen kumar S.K, International Journal on Procedia Engineering, Elsevier, pp 563 - 566, (2011).
58. Dual Moving Text line Detection and Selective making, International journal on computer Science and Engineering, Vol 3, No 10, (2011).
59. A Novel 3 step combinational Approach for Image Encription, Panduranga H.T , Naveen Kumar S.K. International Journal on Computer Engineering and Information Technology, Volume 03, No 4, (2009).
60. Real Time Smart Security System for motion detection, P. N. Sanjay, Vijay Kumar, S. K. Naveen Kumar, International Journal of Scientific and Engineering Research, Vol 6, issue 4, (2015).
61. Design of a Three Lead ECG Amplifier System, Uma Ullas Pradhan and Naveen Kumar S.K, International Journal of Advanced Research in Computer Science and Software Engineering, Vol. 5, Issue 12, (2015)
62. Design and Performance of H- Shaped DRA with Dumbbell shaped DGS for Wide Band Applications, Murthi Mahadeva Naik G , Naveen Kumar S K , Sangeetha B L, International Journal of Emerging Technology and Advanced Engineering, Vol 5, PP. 79-83, (2015).



63. Fabrication and Characterization of High Performance Resistive Type Humidity Sensor based on ZnO/Pyrrole composite materials, S. K. Naveen Kumar, K. C. Gayithri, S. Kiran, International Journals of ChemTech Research, Vol. 7, PP 936-942, (2015).
64. Design and Simulation of Microstrip fed antenna with circular DGS for ku Band Applications, G. Murthy Mahadev Naik, S. K. Naveen Kumar, B. L. Sangeetha, Australian Journal of wireless Technologies mobility and security, Vol 2, PP 321-326, (2015).
65. Performance of Analysis of Micristrip Patch antenna using Co-axial probe feed techniques, G. Murthy Mahadev Naik, S. K. Naveen Kumar, B. P. Bavya, International Journal of Technical Research and Application, Vol 3, PP 365-367, (2015).
66. Sensor Applications of metal Oxide semiconductor Nano particle for Breath Analysis: A Review, PARIPRASHNA, Vol-IX, issues-I&II.
67. Encryption Approach for Images using Bits Rotation Reversal and Extended Hill Cipher Techniques, Sharth kumar H.S, Panduranga H.T and Naveen Kumar S.K, International Journal of Computer Applications (0975 – 8887) Volume 59, (2012)
68. Study of Electrical Behavior of Ag doped ZnO Nanoparticle Thin Film Exposed to X-Ray Kiran S, Santhosh Kumar N, Naveen Kumar S K International Journal of Nanotechnology and Applications, Volume 6, Number 3(2012).
69. Hybrid Approach for Image Encryption using Hill cipher Technique, Sharath Kumar H.S, Panduranga H.T and Naveen Kumar S.K International Journal on Wireless Network and Computational Intelligence, pp 200-205 Springer Verilog ( 2012).
70. Multiple Image Encryption Using Phase Manipulation and SCAN Methods Panduranga H.T, Naveen kumar S.K, Lecture Notes in Electrical Engineering 222, Springer, pp 257-264, (2013)
71. Hybrid approach for Image Encryption Using SCAN Patterns and Carrier Images  
Panduranga H.T , Naveen kumar S.K . International Journal on Computer Science and Engineering, Vol.02, No. 2, 290-293, (2011).

## **Book Section: 06**

1. A Two Stage Combinational Approach for Image Encryption, H. S. Sharath Kumar H. S, Panduranga H. T, Naveen Kumar S. K, Advances in Computing and Information Technology and Advances in Intelligent Systems and Computing , Springer ,Vol 177 (2013) pp 843-849.
2. Hybrid Approach for Image Encryption Using Hill Cipher Technique, Sharath Kumar, H. S. and Panduranga, H. T. and Naveen Kumar, S. K, Wireless Networks and Computational Intelligence. Communications in Computer and Information Science. Springer, Berlin Heidelberg, Vol 292 (2012) pp. 200-205. ISBN 978-3-642-31685-2.
3. Selective image encryption for Medical and Satellite Images, Panduranga H. T, Naveen Kumar S. K -BOOK publisher

4. Fabrication of Interdigitated Electrodes (IDEs) by Screen Printing Technology and Their structural Studies, A. Akshaya Kumar, S. K. Naveen Kumar, Almaw Ayele Aniley, Nanostructured Smart Materials: Synthesis, Characterization and Potential Applications, CRC Press, a Taylor & Francis Group
5. Dual Probe Heat Pulse (DHP) Method Soil Moisture Sensor, Using Advanced Materials-Based Thermistor and Fluorine Doped Tin Oxide (FTO) Thin Film Electric Heater., Almaw Ayele Aniley, S. K. Naveen Kumar, and A. Akshaya Kumar, Nanostructured Smart Materials: Synthesis, Characterization and Potential Applications, CRC Press, a Taylor & Francis Group
6. Indium Doped Tin Oxide (ITO) Nanopowder-Based Electric Heater Fabrication and Characterization, Almaw Ayele Aniley, S. K. Naveen Kumar, and A. Akshaya Kumar, , Nanostructured Smart Materials: Synthesis, Characterization and Potential Applications, CRC Press, a Taylor & Francis Group

### **Papers / poster presentations in Conferences / Seminars / Symposia (list)**

#### **International/National/: 80**

1. Performance and evaluation of Nano antennas for wireless application. Naveen Kumar S.K, Venkatesh C.K, International conference on Nanotechnology, 2012
2. Fabrication of a thin film capacitor sensor using TiO<sub>2</sub> as a dielectric material for biomedical applications Uma Ullas Pradhan, Sanjay Guru raj ,Uma V ,and Naveen Kumar S K. Proc. National conference on Nanotechnology, 2009
3. Studies on Structural and Optical properties of Tio<sub>2</sub> thin films, Uma Ullas Pradhan, and Naveen Kumar S K. Proc.International conference on ICN-2010.
4. Synthesis and characterization of ZnO nanoparticles using self-designed microcontroller based Magnetic Stirrer. Uma Ullas Pradhan, and Naveen Kumar S K., National conference of Nanoscience and Nanotechnology, P-24,2011
5. Electrical characterization of Tio<sub>2</sub> nanoparticle thin film synthesized using wet chemical Procedure, Uma Ullas Pradhan, , and Naveen Kumar S K., National conference of Nanoscience and Nanotechnology, P-34,2011
6. Structural and Optical Properties of ZnO nanoparticle synthesized using self-designed microcontroller based magnetic stirrer. RTMS, P-70, 2011.
7. Effect of X-ray Excitation on the Electrical behavior of Tio<sub>2</sub> nanoparticle thin film. RTMS, P-47, 2011
8. Mesomorphic Phases in Mixtures of Two Non mesogenic compounds. S. K. Naveen Kumar, Sharanappa proc of solid state phys. Symposium, 52, 113, (2007).
9. Liquid crystalline behavior in the mixture of non mesogenic compounds. S.K.Naveen Kumar, Nagappa proc of solid state phys. Symposium, 21, 60 (2006).

10. Variation of the entropy of the Transition in nematic mixture. S.K.Naveen Kumar, Nagappa proc of solid state phys. Symposium, 45, 221 (2004).
11. Micellar nematic lyophase in the binary mixture of two non-mesogenic compound. S.K.Naveen Kumar, Nagappa proc of solid state phys. Symposium, 46, 75 (2003).
12. Optical and Thermal properties of Irradiated Nematic Liquid Crystals S.K.Naveen Kumar, Nagappa proc of solid state phys. Symposium, 46, 113 (2003).
13. Electro-optic effect of nematic liquid crystalline mixtures. S.K.Naveen Kumar, Nagappa, proc of solid state phys. Symposium, 45, 221 (2002).
14. Induced chiral smectic phase in binary mixture of nematic and cholesteryl compound. S.K.Naveen Kumar, Nagappa, proc of solid state phys. Symposium 44, 19-20 (2001).
15. Mesomorphic behavior of binary mixtures of two non-mesogenic compounds Nagappa , S.K. Naveen kumar , P.Nagraj , proc of solid state phys. Symposium 43, 110 (2000).
16.  $TGB_A$  ,  $TGB_C$  , and  $TGB_{C^*}$  phases in the mixtures of liquid crystalline compounds J. Mahadeva, S.K.Naveen kumar, proc of solid state phys. Symposium, 43, 108 (2000).
17. Review on controlling home appliances by BMI technique for handicap person Yogananda B.S, Naveen kumar S.K. and Govindappa, CCCA-SRIT-2010.
18. Nanocrystalline  $CaTiO_3$  ceramic powder preparation using mechanochemical method followed by successive heat treatments. Almaw Ayele Aniley, Naveen Kumar S.K. and Akshaya Kumar A, NCASMDT 2018 February 12-13, 2018.
19. Structural and optical properties of zinc oxide nanoflowers synthesized using sol-gel method. A Akshaya Kumar, S K Naveen Kumar, Almaw Ayele Aniley, NCASMDT 2018 February 12-13, 2018.
20. Dual probe heat pulse (DPHP) method volumetric soil moisture content estimation using nanomaterial based thermistor and fluorine doped tin oxide thin film electric heater. Almaw Ayele Aniley, Naveen Kumar S.K. and Akshaya Kumar A, ICN2018.
21. ITO Nanopowder Based Electric Heater Fabrication and Characterization. Almaw Ayele Aniley, Naveen Kumar S.K. and Akshaya Kumar A, ICN 2018.
22. Nanoceramic Powder Based Thermometer for Basal Body Temperature Monitoring System. Megha M, Almaw Ayele Aniley, Naveen Kumar S.K and Akshaya Kumar A, ICN 2018.
23. Fabrication of Interdigitated Electrodes (IDEs) by Screen Printing Technology and their Structural Studies. Akshaya Kumar A, Naveen Kumar S.K, Almaw Ayele Aniley and Shekhar Bhansali. ICN 2018.
24. Design and fabrication of custom designed low-cost spray pyrolysis unit. Omprakash S S, Naveen Kumar S.K. ICN 2018.
25. Study of an amorphous zinc oxide thin film by custom designed low cost spray pyrolysis unit. Omprakash S S, Naveen Kumar S.K. ICN 2018.
26.  $TiO_2$  Pani based Anti -Typhi immobilized Nanosensor for salmonella Typhi detection  
Sanjay P. N, Gayithri K. C and Naveen Kumar S. K, RAINSAT- 2016, 2015.

27. Humidity sensing Behavior of silver doped and undoped ZnO Nanostructure, Deeksha Rai, Naveen Kumar S. K and Gayithri K. C, RAINSAT – 2015.
28. An Enhancement of Microstrip DGS Patch antenna for the frequency band, Murthy Mahadev Naik G, Naveen Kumar S. K, Sangeetha B, 2<sup>nd</sup> National Conference on multimedia Technology and Communication System. NCMTCS - 2015.
29. Preparation of TiO<sub>2</sub>/Nb<sub>2</sub>O<sub>5</sub> Photo-electrode for Dye Sensitized Solar Cell Application, Kiran S and Dr. Naveen Kumar S K , *National Conference on Nanoscience – A Mltidisciplinary Approach*, Mount Carmel College Bengaluru. 2015. p. 41.
30. A Study and Analysis of Substrate Material for the Performance and Development of Microstrip Antenna”, Venkatesh C K and Naveen Kumar S K , 2<sup>nd</sup> National Conference on Emerging Trends in Electronics & Communications (NECTEC-15).
31. Design and Analysis of Rectangular Microstrip Patch Antenna using HFSS Operating in S-Band for Wireless Communication, , Venkatesh C K and Naveen Kumar S K, 2<sup>nd</sup> National Conference on Emerging Trends in Electronics & Communications (NECTEC-15)
32. Design and development for miniaturization of patch antenna from conventional to Nano composites for wireless Communication. C K Venkatesh, Naveen Kumar S K. IETE CON, RFW-2014
33. An approach to design to rectangular microstrip patch antenna in S band. Devaraj Naik, Murthy Mahadev naik G, Naveen Kumar S K, Technorete International Conference, pp. 76-79, (2014).
34. Fabrication of silver doped zno nano rods for self design glucose monitoring system. Naveen Kumar S K, K C Gayithri, National Conference on Networking, embedded and Wireless Systems (2014)
35. The Significant role of nano composite on the performance of antenna substrate, C K Venkatesh, Naveen Kumar S K, National Conference on Networking, embedded and Wireless Systems (2014)
36. Synthesis and studies of nanopours Tio<sub>2</sub> using self-designed low cost magnetic stirrer with hot plate. Kiran S, Naveen Kumar S K, National Conference on Networking, embedded and Wireless Systems (2014).
37. Study on silver doped and undoped ZnO thin films working as capacitive sensor, S. Kiran, N. Santhosh Kumar, and S. K. Naveen Kumar, AIP Conference Proceedings, 511, (2013)
38. Fabrication and characterization of enzymatic glucose sensor based on ZnO nanoparticles, Naveen Kumar, S K ,Kavyashree,K ,Pallavi, B C, Kiran, S, IEEE, ICNMEET2013, 396-399, (2013)
39. Real time glucose monitoring system based on enzymatic nanosensor, Naveen Kumar, S K, Gayithri, K C , Kiran S, Santhosh Kumar N, IEEE, ICNMEET2013, 412-415,(2013).
40. Highly stable dye sensitized solar cells prepared with carbon nanotube –TiO<sub>2</sub> Nanocomposites Photo anodes. Kiran S, Naveen Kumar S.K. ICN 2018.

41. Fabrication of Interdigitated Electrodes (IDEs) with nanostructured sensitive layer for electrochemical sensor applications. Akshaya Kumar A and Naveen Kumar S K. ICMS-2018, 11 and 12 December 2018, Chennai.
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### **Invited / plenary talks delivered:**

- ❖ The invited speaker and session chair: The First International Conference on 4D Materials and Systems 4DMS-2018, YAMAGATA University, Yonezawa Japan.

- ❖ The invited speaker and session chair: Second International Conference on Composites, Bio-Composites, and Nanocomposites at Durban University of Technology, Durban, South Africa.
- ❖ The invited speaker: Indo-US Bilateral Research Project, Florida International University (FIU), USA, Engineering Center 2300.
- ❖ The invited speaker and session chair: 37th ECS Meeting with 18th International Meeting on Chemical Sensors (IMCS 2020), Montreal, Canada
- ❖ Mangalore University Delegate for Bangalore Nano Conference 2015 and 2020.
- ❖ The invited speaker and session chair: ICIAS-2015, Malnad College of engineering, Karnataka.
- ❖ The invited speaker: First-grade degree college-2018, Hassan, Karnataka, India.
- ❖ Inaugurator: National Science Day-2018 , Alva's Education Foundation, Mangalore
- ❖ Inaugurator: Electronics Student Association, ELECXA-2018, Bearys institution of technology(BIT),Mangalore
- ❖ Keynote Lecture: National Workshop on Data Analytics, Department of electronics, Mangalore University.
- ❖ Keynote Lecture: National Workshop on SPSS by IBM at Mangalore University Incubation Center (MUIC), Mangalore University
- ❖ Keynote Lecture: National Workshop on Smart City IoT-Based Technology organized by Mangalore University at Mangalore University Incubation Center (MUIC), Mangalore University

### **Conferences / Seminars / Workshops / Symposia organized:**

- ❖ National Workshop on Internet of things by Nihon communication and IBM at Department of electronics, Mangalore University, April 16th -18th, 2018.
- ❖ National Workshop on Data Analytics by IBM at Mangalore University Incubation Center (MUIC), Mangalore University, July 22 -27, 2019.
- ❖ National Workshop on IoT-1 by IBM at Mangalore University Incubation Center (MUIC), Mangalore University
- ❖ National Workshop on Cyber Security-1 by IBM at Mangalore University Incubation Center (MUIC), Mangalore University
- ❖ National Workshop on SPSS by IBM at Mangalore University Incubation Center (MUIC), Mangalore University.
- ❖ National Workshop on IoT-2 by IBM at Mangalore University Incubation Center (MUIC), Mangalore University



- ❖ National Workshop on Cyber Security-3 by IBM at Mangalore University Incubation Center (MUIC), Mangalore University

**Awards / Fellowship / Recognition (Specify):**

- **Young Scientist Award from VGST, Karnataka, India**

**Membership in Local/National / Social Committees:**

- ❖ National Liquid Crystal Society
- ❖ International Electro Chemical Society (ECS)

**Chairmanship/Membership in University Academic Bodies (BOE/BOS):**

Sl. No	Position	Name of the Academic Body	University	Period of Service
1	Member	BOE (Board of Examination)	University of Mysore	2004-2013
2	Member	BOS (Board of Studies)	University of Mysore	2006-2013
3	Chairman	BOE (Board of Examination)	University of Mysore	2004, 2008, 2010 and 2012
4	Member	BOS (Board of Studies)	Mangalore University	2013-2015
5	Member	BOE (Board of Examination)	Mangalore University	2013-2015
6	Chairman	BOS (Board of Studies)	Mangalore University	2015-Till Date
7	Chairman	BOE (Board of Examination)	Mangalore University	2015-Till Date
8	Member	BOE (Board of Examination)	University of Mysore	2019-Till date
9	Member	BOS (Board of Studies)	Davangere University	2019-Till date

