

## Faculty details of Dr.Venkateswara Rao Kolli

Name: **Dr.Venkateswara Rao Kolli**

Photo:



Qualification : **B.Tech, M.Tech, Ph.D**  
Position Held : **Assistant Professor**  
Research Interest : **MEMS, MOEMS, Integrated Optics, Photonics**  
Mobile No : **8277566555**

### **Publications:**

#### International Journals

1. Tupakula Sreenivasulu, Venkateswara R. Kolli, Badrinarayana Tarimala, Gopalkrishna Hegde, Mohan Sangineni, and Srinivas Talabattula, Super Defect Inside Photonic Crystal Ring Resonator to Enhance Q Factor , SPIE Journal of Optical Engineering, Vol. 55, No. 3, 035103, March 2016.
2. T Sreenivasulu, Venkateswara Rao Kolli, T R Yadunath, T Badrinarayana, Amaresh Sahu, Gopalkrishna Hegde, S Mohan and T Srinivas, Photonic Crystal based Sensor to Measure Sub-micro Newton Forces over a Wide Range , Current Science, Vol. 110, No. 10, May 2016.
3. Venkateswara Rao Kolli, Tupakula Sreenivasulu, T Badrinarayana, Gopalkrishna Hegde, T Srinivas, Design and Analysis of Serially Coupled Double Microring Resonator Based Force Sensor for 1  $\mu$ N Range Measurement , Elsevier, Optik 131 2017 1063-1070.
4. T Sreenivasulu, Venkateswara Rao Kolli, Badrinarayana T, Gopalkrishna Hegde, T Srinivas, Photonic crystal ring resonator based force sensor: Design and analysis, Elsevier,Optik 155 (2018) 111-120.

5. Venkateswara Rao Kolli, Indira Bahaddur, Basavaprsad, T Srinivas, High Q-factor Photonic Crystal Microring-resonator based Pressure Sensor,, Elsevier-Photonics and Nanostructures - Fundamentals and Applications 2020
6. Venkateswara Rao Kolli, Dudla Prabhakar, T Srinivas, Integrated Optical MEMS Serially Coupled Double Racetrack Resonator based Accelerometer, Elsevier-Optik 2021(Accepted)

### **International Conferences:**

1. Yadunath.T.R, Anusree Kandoth, Srinivasulu T, Venketeswara Rao Kolli, Lavendra Yadav, GopalHegde, Badrinarayana, T.Srinivas, S.Mohan, Photonic Crystal Fabrication For Integrated Optics Applications , ICEE-December-2014,IISc, Bangalore.
2. T Sreenivasulu, V R Kolli, Anusree K, Yadunath T R, Badrinarayana T, T Srinivas, Gopalkrishna Hegde, and S Mohan, Photonic Crystal based Force Sensor on Silicon Microcantilever , IEEE International Conference on Sensors – IEEE Sensors - 2015, Busan, pp. 247-250, 1-4, November, 2015 .
3. T Sreenivasulu, V R Kolli, Amresh Kumar Sahu, and T. Srinivas, Photonic Crystal based Sensor for Small Forces , International Conference on Microwave and Photonics, Dhanbad, pp. 1-3, December, 2015.
4. Venkateswara Rao Kolli, Sreenivasulu.T, Yadunath.T.R, Anusree Kandoth, T.Srinivas, Mechanically Tunable IO Microring Resonator Based Force Sensor , Dec, ICANN-2015, IIT-Guwahati,2015.
5. Venkateswara Rao Kolli, K.G.Narayanan(Presented ),T.Srinivas, An Integrated Optic Force Sensor Based on Serially Coupled Double Microring Resonator , BRICS PHOTONICS May-2016,Masckow, Russia.
6. Venkateswara Rao Kolli, T R Yadunath, Resmi R K, T Badrinarayana,Gopalkrishna Hegde,T Srinivas, Design, Fabrication and Characterization of 5  $\mu\text{m}$  Ring Resonator , OSA, International Conference on Fibre Optics and Photonics-2016 Kanpur India, ISBN: 978-1-943580-22-4, 4-8 December 2016.
7. Ravali Pampala ; V.R. Kolli ; T. Srinivas, Differential Pressure Sensor Using Integrated Optical MEMS and Double Ring Resonator,IEEE Workshop on Recent Advances in Photonics (WRAP), 2017, WRAP 2017-Hyderabad, India
- 8.. Venkateswara Rao Kolli, Ravali Pampala, Yadunath T R and Srinivas Talabattula Integrated Optic Microring Resonator based Sub- $\mu\text{N}$  Force and Acceleration Sensors, EECS Symposium-2018, Indian Institute of Science, Bangalore.

9. Basavaprasad ; Indira Bahaddur ; Venkateswara Rao Kolli, High Q-factor 2D PC Microcavity Ring Resonator Based Biosensor for Biomedical Applications, 2019 1st International Conference on Advances in Information Technology (ICAIT), 2019.

10. Venkateswara Rao Kolli, Basavaprasad ; Srinivas Talabattula, High Q Photonic Crystal Based Microring Resonator Biosensor for the Detection of Glucose-Concentration in Urine and Blood 2020 IEEE International Conference on Electronics, Computing and Communication Technologies (IEEE-CONECCT), 2020.

11. Venkateswara Rao Kolli, Srinivas Talabattula, Design and Analysis of MEMS Racetrack Resonators for Force Sensing Applications 2020 IEEE International Conference on Electronics, Computing and Communication Technologies (IEEE-CONECCT)

12. Lakshmi, Venkateswara Rao Kolli et.al, "PRESSURE SENSOR BASED ON 2-DIMENSIONAL PHOTONIC CRYSTAL RING RESONATOR", VLSI, Signal Processing, Power Electronics, IoT, Communication and Embedded Systems" (VSPICE-2020- ICETE-2020) being held on 22<sup>nd</sup> and 23<sup>rd</sup> December 2020.

#### **International Conferences Attended:**

1. International conference on smart systems and smart material structures and systems, July

08-11 2014 at the Indian Institute of Science, Bangalore.

2. IEEE workshop on Recent Advances in Photonics (WRAP) 2015 organized by IEEE Photonics society on 16<sup>th</sup> and 17<sup>th</sup> December at IISc, Bangalore.

3. IEEE CRALT 2016, Conference on Recent Advances in Light wave Technology 21-23 September 2016 Bangalore International Exhibition Center.

## **FDP**

#### **AICTE two weak FDP:**

1. Sensors and Robotics, 8<sup>th</sup> July to 1<sup>st</sup> August 2011, Acharya Institute of Technology, Bangalore.

2. Optical Fiber based WiMax: Network security issues and optimization techniques (OFWSOT\_2012) from 04.06.2012 to 17.06, 2012, Selvam college of Technology, Namakkal, Tamilnadu.

3. *Advances In Finite Element Methods And Applications*, 17<sup>th</sup> to 28<sup>th</sup> July 2017, Dept of E&E and CE, BMS Collge of Engineering, Bangalore. Dept OF E&C Engg, GITA, Bhubaneswar,.

4. *Design of Micro-Optical Components Using Advanced Software Tools*, 27<sup>th</sup> November to 9<sup>th</sup> December 2017 Dept OF E&C Engg, GITA, Bhubaneswar,.

5. *Machine Learning, Artificial Intelligence in Image Processing using MATLAB and Xilinx System generator for DSP*" organized by Dept of E&CE, KIT, Tiptu from 22<sup>nd</sup> July 2019 to 3<sup>rd</sup> August 2019.

6. Green, Smart, 5G Technologies organized by the department of ECE, MCE ,Hassan from 09-12-2019 to 21-12-2019

7. Digital Transformation in Teaching Learning process 6<sup>th</sup> to 22<sup>nd</sup> April 2020 organized by TEQIP III and funded by MHRD Government of India (online Certificate Program)

**AICTE one weak.**

1. Fuzzy Techniques In Image Processing, 21<sup>st</sup> to 25<sup>th</sup> May 21012, Mailam Engineering College, Mailam, Tamilnadu.

2. Engineering Physics, 19-24<sup>th</sup> August 2013, CBIT, Hyderabad.

3. Latex and Excel for Research –hands on Sessions, BMS College of Engineering, Bangalore, 2<sup>nd</sup> to 7<sup>th</sup> August 2013.

4. A practical Approach towards Embedded System Design, MSRIT, Bangalore, 27<sup>th</sup> to 1<sup>st</sup> August 2015.

5. Principles of Photonics and Applications, 20<sup>th</sup> to 24<sup>th</sup> July 2015, MSRIT, Bangalore.

6. *Advanced Mathematical Tools in Engineering Applications*, 2<sup>nd</sup> to 6<sup>th</sup> July . 2018 Dept. of Maths, MCE, Hassan.

7. *Recent Developments in Solar & Wind Energy Systems for On/Off Applications*, 9<sup>th</sup> to 13<sup>th</sup> July 2018, Department of E&E. Engg, MCE, Hassan.

8. *Advanced Mathematical Tools in Engineering Applications* organized by Department of Mathematics, Malnad Colleg of Engineering, Hassan from 2<sup>nd</sup> to 6<sup>th</sup> July 2018.

9. *Challenges in Non Conventional Energy Sources* organized by the department of Automobile Engineering, from 9<sup>th</sup> to 13<sup>th</sup> of April 2018.

10. *Being a Great Teacher* organized y the Department of Mechanical Engineering, MCE, Hassan from 3<sup>rd</sup> and 4<sup>th</sup>, 2018.

11. MEMS and MOEMS organized by department of ECE MCE, Hassan from 30<sup>th</sup> April to 04<sup>th</sup> May 2018.

12. Machine learning with Python organized by Department of CSE KKR&KSR Institute of Technology and Science from 13<sup>th</sup> to 18 July 2020 Guntur, Andhrapradesh (online Certificate Program)

13. Research Avenues in Healthcare Technology” organized by the Department of Electronics and Instrumentation during 21<sup>st</sup> to 25<sup>th</sup> of July 2020 under TEQIP Phase III (online Certificate Program)

**Workshop attended:**

1. National Level Symposium On “RECENT TRENDS IN COMMUNICATION ENGINEERING”, held at MCE, Hassan, during 12<sup>th</sup> and 13<sup>th</sup> Sept, 2005.

LabVIEW and Data Acquisition, 5<sup>th</sup> march 2011, IT, MCE,.

2. Matlab and DSK Implementation Of DSP Algorithms , 30<sup>th</sup> July to 1<sup>st</sup> August, VTU, PES School of Engineering, Bangalore.

3. IEEE workshop on Recent Advances in Photonics 2015, 16<sup>th</sup> 17<sup>th</sup> December IEEE Photonics society, IISc, Bangalore.

4. Recent Advances in Silicon Photonics and Applications, 14<sup>th</sup> March 2015, OSA, student Chapter, IISc, Bangalore.

Wolfram Mathematica 9, CeNSE, IISc, Bangalore, 23<sup>rd</sup> to 24<sup>th</sup> May 2014.

5. Micro-Nano Technology, 26<sup>th</sup> April 2014, IEEE-IISc NC-SC Jint student chapter, CeNSE, IISc, Bangalore.

6. Some Recent Topics In Communication Networks, 18 July 2015 IEEE COMSOC Bangalore. ECE, IISc, Bangalore.

7. Research Methodologies and Latex skills IEEE Bangalore section and IEEE\_IISc student branch, 9-10 August 2014, ECE, IISc, Bangalore.

8. 5G technology, 22-23 May 2015 Communication Society Bangalore and IEEE Bangalore.

9. Modelling and Simulation of Optical Communication Components and Systems , 27<sup>th</sup> November 2014, IEEE Communications Society IISc, Bangalore.

10. Game theory for modern engineering applications, 31<sup>st</sup> October 2014, ECE, IISc, Bangalore.

11. Trends and Developments in Photonics and Optical Communications (TDPOC 2016), 28<sup>th</sup> and 29<sup>th</sup> March Amritha School of Engineering, Bangalore.

10. Summer school in optics and Photonics (SOAP) organized by Applied photonics Initiative, IISc, from 17 June to 21 June 2019 ECE, IISc, Bangalore.

12. Trends and Developments in Photonics and Optical Communications (TDPOC 2016), held at Amritha School of Engineering, Bangalore on 28 and 29 March, 2016.

13. Virtual Laboratory held on 16<sup>th</sup> February, 2017 at MCE, Hassan.

14. Internet of Things for Real time applications organized by dept of E&C Engineering in association with EDULIFE India- Bangalore on 13<sup>th</sup> and 14<sup>th</sup> of March 2017 at MCE, Hassan.

15. High speed optical networks organized by dept of E&C Engineering, Hassan on 21<sup>st</sup> of March 2017.

16. Image processing and pattern recognition techniques organized by ECE from 24<sup>th</sup> to 26<sup>th</sup> of March 2017, MCE, Hassan.