

Curriculum Vitae

APPLIED FOR: BEST RESEARCH AWARD

Personal Details:

Candidate Name: Dr. Venkateswara Rao Kolli
Gender : Male
Date of Birth : 14-03-1974
Are you a citizen of India? Yes



Present Address:

Assistant Professor,
Electronics and Communication Engineering,
Malnad College of Engineering,
Hassan-573 202

Permanent Address:

S/o Pentaiah,
Pothavaram (post),
Nallajerla Mandal,
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Category: Scheduled Caste

Education, commencing with highest qualification:

Degree	College/Institute	University/Institute	Year of Completion	Percentage /CGPA	Class
Ph.D	Indian Institute of Science, Bangalore	Indian Institute of Science, Bangalore	2018	5.80/8	First
M.Tech	Malnad College of Engineering, Hassan, Karnataka	Visvesvaraya Technological University, Karnataka	2009	66.80	First
B.Tech	S.V.H. College of Engineering, Machilipatnam, AP	Acharya Nagarjuna University, Andhra Pradesh (AP)	2003	60.24	First
D.C.M.E	Dr.B.R.A.G.M.R. Polytechnic college, Rajahmundry, Andhra Pradesh	State Board of Technical Education, Andhra Pradesh	1995	FC/67.90	First
SSC	Z.P.P.High school, Pothavarram	Board of Secondary Education	1991	FC/68.17	First

PhD Advisor : Prof. T. Srinivas, Professor, ECE Department, Indian Institute of Science, Bangalore

Title of Thesis: Integrated Optic Microring Resonator based Sub- μ N Force and Acceleration Sensors

Areas of specialization: Photonics, Integrated Optical MEMS, Optical MEMS

EDUCATION

Ph.D (Electrical Communication Engineering) 2012 – 2018

Indian Institute of Science, Bangalore

GPA: 5.8/8.0

Advisor: Prof. T. Srinivas

Thesis Topic: Integrated Optic Microring Resonator based Sub- μ N Force and Acceleration Sensors

M.Tech.(Digital electronics and Communication Systems) 2005-2009

Electronics and Communication Engineering

Malnad College of Engineering, Hassan,

Karnataka

Advisor: Prof.M.V.Satyanarayana

Thesis Topic: Geostationary Satellite Image Navigation using coordinates Transformation Technique

Percentage Scored: 60.24%

B.Tech. (Electronics and Communication Engineering) 1997-2003

S.V.H. College of Engineering,

Machilipatnam, Andhra Pradesh

Percentage Scored: 60.24%

CURRENT POSITION

Assistant Professor

October 2006 - current

Electronic and Communication Engineering,

Malnad College of Engineering,

Hassan-573202, Karnataka.

RESEARCH INTERESTS

- Integrated Optical MEMS based force, pressure and acceleration, and Bio sensors.
- Photonic crystal MEMS based force, pressure, Bio sensors and chemical sensors.

WORK EXPERIENCE

Assistant Professor

October 2006 – current

FEEDBACK

2012-23 Odd Semester Sensors and Actuators course 87.75%

2012-23 Odd Semester Basic Electronics 93.55%

2021-22 Even Semester MEMS Course 86.13%

2021-22 Odd Semester Sensors and Actuators course 90.80%

2020-21 Even Semester MEMS course	80.36%
2020-21 Odd Semester OFC Systems course	96.38%
2017-21 Average feedback	above 80%

AWARDS

- Co-author of Best paper award in international conference on advances in information technology (ICAIT-2019)

PROFESSIONAL SERVICE

Coordinator:

- One week FDP on MEMS&MOEMS, ECE, MCE May 2018
- Two weeks FDP on Green, Smart,5G Technologies, ECE, MCE, Hassan,2019
- Coordinator for NAAC committee
- Co-coordinator for NBA committee

Ph. D THESIS SUPERVISION

- 1.Basavaprasad, Integrated Optical Ring Resonators for the Sensing and Communication Applications, 2021
- 2.Meghashree B S Design and Analysis of Photonic Crystal resonators for the Sensing and Communication Applications, 2022

M.TECH THESES SUPERVISED AT MCE, HASSAN

1. Athira K, Strain measurement in the optical fiber, 2017.
2. Divyashree K N, Analysis of dispersion in optical fiber using chirping method, 2017.
3. Girish P R, Photonics crystal-based pressure sensor using diaphragm, 2018.
4. Preetham J K, Photonic crystal ring resonator-based biosensor, 2018
5. Balaramgowda, integrated optical ring resonator-based bio sensor, 2018
6. Basavaprasad, High Q factor 2D PC based ring resonator for detection of glucose concentration in urine, 2019

MEMBERSHIP IN TECHNICAL SOCIETIES.

- ISTE life Member
- IEEE Member
- IEEE Photonics Member
- Optic Member

INSTITUTE MEMBERSHIP POSITIONS

- Board of Studies, ECE, MCE, Hassan
- Board of Examinations, ECE, MCE, Hassan
- Ant ragging committee MCE, Hassan
- Rotract club, MCE, Hassan
- Program Officer, Youth Red Cross Wind, MCE, Hassan.

PATENTS GRANTS AND PUBLISHED

1.Venkateswara Rao Kolli, Dudla Prabhakar, Anusha, Srinivas Talabattula, “*Integrated optical serially coupled microring resonator-based accelerometer and high Q-factor photonic crystal microring resonator-based pressure sensor*”, Application Number, 202141040452, 09.06.2023, **INDIAN GRANT**.

2. DR. VENKATESWARA RAO KOLLI SUSHMA NAGESH DR. INDIRA BAHADDUR DR. MALA RAMESH DR. RAJANNA SIDDIAIAH, “**Laser Interferometer for length measurement**”, 25.10.2023, **U.K GRANT**.

3.Venkateswara Rao Kolli, Dudla Prabhakar, Srinivas Talabattula, “**ADVANCE, AND HIGH SENSITIVE PHOTONIC CRYSTAL MACH-ZEHNDER-INTERFEROMETER BASED PRESSURE-SENSOR**”, Application Number, 202141048718, Published on 25.10.2021.

4. Rishitej Chaparala, Imamvali Shaik, Yuvaraju Chinnam, **Venkateswara Rao Kolli**, Dr.Sreenivasulu Tupakula, “*Spoof Surface Plasmon Polaritons Waveguide for sensor based Applications*”, Application Number:202341033912, Published on 15.05.2023.

5.Dr. RAJANNA S, Dr. M. RAMESH, **Dr.VENKATESWARA RAO KOLLI**, “*Isolated integrated renewable Energy Model*”, Application Number: 202341052112, Published on 03.08.2023,.

6.Dr. Venkateswara Rao Kolli, Dr. Srinivasulu Tupakula, Dr. Srinivas Talabattula, “*An Optimized Integrated Optical Coupled Micro Ring Resonator for Low-Pressure Sensing*”, Application Number, 202341048095, Published on 17.07.2023.

7.Dr. M. Ramesh, Dr. Rajanna S, **Dr. Venkateswara Rao Kolli**, “*Dispatch Strategies-based Performance Analysis of a Hybrid Renewable Energy System for a Remote Rural Area in India*”, Application Number, 202341049419, 21.07.2023. Published.

8.Dr. Shreevyas H. M, **Dr. Venkateswara Rao Kolli**, Karthik P N, “*Investigation of Network Anomaly Detection Techniques for Distributed Denial of Intelligent Service Attacks*”, Application Number, 202341052114, Published on 03.08.2023.

9.Dr. Shreevyas H. M, **Dr. Venkateswara Rao Kolli**, Ruhin Shaikh, “*False Positive automatic Reduction in DDoS attack classification using ANN simulation*”, Application Number, 202341052113, , Published on 03.08.2023.

10.Dr. Srinivasulu Tupakula, **Dr. Venkateswara Rao Kolli**, Dr. Indira Bahaddur, “*Super defect inside photonic crystal ring resonator to enhance Q-factor*”, Application Number, 202141048718, November 2021. Published.

11.Dr. Sreenivasulu Tupakula, **Dr. Venkateswara Rao Kolli**, Dr. Indira Bahaddur, *A Novel 8-Channel DWDM demultiplexer on Silicon Photonic Crystal slab: Design and Analysis*, Application Number, 202141049418, 21.07.2023, Published.

12. DR. SREENIVASULU TUPAKULA, DR. VENKATESWARA RAO KOLLI, DR. INDIRA BAHADDUR, DR. KUMAR P K, **4-Channel DWDM demultiplexer on silicon photonic crystal slab**, Application No.202341056018, Filled on 21/08/2023

PUBLICATIONS

Link to Google Scholar page

<https://scholar.google.com/citations?user=8LiKAlkAAAAJ&hl=en>

As on 23/11/2023, Citation Count: 105, h-index: 6, i10 index: 2.

JOURNAL PAPERS

1. **Venkateswara Rao Kolli**, Srinivas Talabattula, An Optimized Integrated Optical Coupled Micro Ringresonator for Low-Pressure Sensing, IEE Sensors, Volume/Issue: Volume 22 , Issue 16, Jul 12 2022, DOI: 10.1109/JSEN.2022.3188873 , Impact factor- 4.60, SCI.

2. **Venkateswara Rao Kolli**, Indira Bahaddur, Srinivas Talabattula , *A high sensitive photonic crystal Mach-Zehnder-Interferometer based pressure-sensor*, Elsevier - Results in Optics, 202, Scopus.

3. **Venkateswara Rao Kolli**, Prabhakar Dudla, Srinivas Talabattula, *Integrated optical MEMS serially coupled double racetrack resonator based accelerometer*, Elsevier, Optik (2021) Volume 236, June 2021, 166583, Impact factor-2.840, SCI.
4. **Venkateswara Rao Kolli**, Indira Bahaddur, Basavaprasad, Dudla Prabhakar, Srinivas Talabattula, *High Q-factor Photonic Crystal Microring-resonator based Pressure Sensor*, Elsevier-Photonics and Nanostructures - Fundamentals and Applications 2020, Volume 43, February 2021, 100870., Impact factor- 3.064, SCI.
5. T Sreenivasulu, **Venkateswara Rao Kolli**, Badrinarayana T, Gopalkrishna Hegde, T Srinivas, *Photonic crystal ring resonator based force sensor: Design and analysis*, Elsevier, Optik 155 June-2018, 111-120 Impact factor-2.840, SCI
6. **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 μ N Range Measurement*, Elsevier, Optik 131 Feb-2017 1063-1070. Impact factor-2.840, SCI
7. 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. Impact factor 1.102, SCIE.
8. 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. Impact factor 1.09, SCI.

INTERNATIONAL CONFERENCES

1. PRABHAKAR DUDLA, **Venkateswara Rao Kolli**, VKDV PRASAD Varre, Vasudeva Rao Manepalli, Bhuvan Chand Pulikonda, Performance prediction of graphene-based patch antenna using different ground plane dimensions, Volume 50, Part 5, Pages 2392-2397, 2022.
2. Varsha, Indira Bahaddur, **Venkateswara Rao Kolli**, Photonic Crystal Based Bio-Sensor using Rhombic Ring Resonator for Cancer Cell Detection, 2021 IEEE International Conference on Electronics, Computing and Communication Technologies (IEEE-CONECCT).
3. **Venkateswara Rao Kolli**, Basavaprasad, Srinivas Talabattula, *High Q Photonic Crystal Based Microring Resonator Biosensor for the Detection of Glucose-Concentration in Urine and Blood*, IEEE-CONNECT, July-2020.
4. **Venkateswara Rao Kolli**, Srinivas Talabattula, *Design and Analysis of MEMS Racetrack Resonators for Force Sensing Applications*, IEEE-CONNECT July-2020

5. Lakshmi, **Venkateswara Rao Kolli**, P. C. Srikanth, D. L. Girijamba, Indira Bahaddur 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 22nd and 23rd December 2020.

6. 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.

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**, T R Yadunath, Resmi R K, T Badrinarayana, Gopalkrishna Hegde, T Srinivas, Design, *Fabrication and Characterization of 5 μ m Ring Resonator*, OSA, International Conference on Fibre Optics and Photonics-2016 Kanpur India, ISBN: 978-1-943580-22-4, 4-8 December 2016.

9. 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.

10. 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.

CONFERENCE NOT PRESENTED/POSTERS

1. **V Rao Kolli**, Ravali Pampala, Yadunath T R and Srinivas Talabattula Integrated Optic Microring Resonator based Sub- μ N Force and Acceleration Sensors, EECS Symposium-2018, Indian Institute of Science, Bangalore

2. **Venkateswara Rao Kolli**, K.G.Narayanan, T.Srinivas, An Integrated Optic Force Sensor Based on Serially Coupled Double Microring Resonator, BRICS PHOTONICS May-2016, Masckow, Russia.

3. **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.

4. 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.

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 16th and 17th December at IISc, Bangalore.
3. IEEE CRALT 2016, Conference on Recent Advances in Light wave Technology 21-23 September 2016 Bangalore International Exhibition Center.

COURSES CREDITED AT IISc, BANGALORE

Micro-sensor technologies
Optical Engineering and Laser Instrumentation
Photonics Integrated Circuits
Sensors and Measurement Techniques

Declaration:

I hereby declare that all entries in this form as well as the information provided in the attached documents are true to the best of my knowledge and belief.

SD/-
Venkateswara Rao Kolli