

CURRICULUM VITAE

Name : Jyoti F. Akki
Father's Name : Fakkirappa K. Akki **Marital Status:** Single
Date of Birth : 18-07-1979
Address : 401, Rishika Heights
Lingarajnagar (North)
Hubli – 580031
Karnataka
Phone: 0836-2270331(R), 9964809790
Email: jyoti18779@gmail.com

Educational Qualification

M. Sc. (Physics) Specialization: Spectroscopy

Cleared **Karnataka SET 2014** (conducted by Mysore University)

Degree	Board/University	Year of Passing	Percentage
Ph. D. (Physics)	Karnatak University, Dharwad (Guide: Prof. U. S. Raikar)	January 2015	Title: Fabrication of Fiber Grating Sensors Their Characterization and Application in Chemical Sensing
M. Sc (Physics)	Karnatak University, Dharwad	May 2006	64%
B. Sc. (PCM)	Karnatak University Dharwad	April 2001	71 %
PUC II	Pre-University Board, Bangalore	April 1997	78 %
S. S. L. C.	Karnataka State Secondary Education Board, Bangalore	April 1995	81 %

Refresher Course: Attended Refresher Course “67th Experimental Physics” conducted by Indian Academy of Science at Goa University, Panaji, Goa from 10th to 17th May 2017.

Fellowships:

1. Senior Research Fellow (2012-14), CSIR, New Delhi
2. Junior Research Fellow (2007-2011), BRNS, BARC, Mumbai
3. National Fellowship for M. S. in Science Museums (2007), NCSM, Kolkata.
(In association with Birla Institute of Technology and Science, Pilani)

Subjects Taught at PG level

Classical Mechanics, Statistical Mechanics, Electrodynamics (Field Theory), Matrices & Tensors, Group Theory, Atomic & Molecular Spectroscopy, Lasers, Computer Programming (FORTRAN).

Work Experience :

S. No.	Institute	Designation	Year	Duration
1	Karnatak Science College, Dharwad	Teaching Assistant	2006	5 months
2	PG Department of Physics, Karnatak University Dharwad	Junior Research Fellow under the research project funded By DAE-BRNS Mumbai	September 2007 to March 2011	3.5years
3	PG Center, JSS College, Dharwad	Assistant Professor	Working since August 2014	4years

List of Publications in Journals

- 1. Elemental analysis of wastewater effluent using highly sensitive fiber Bragg grating sensor**
Optics & Laser Technology, Vol. 105, pp. 45-51 (September 2018)
- 2. Quantification of chloride and iron in sugar factory effluent using long period fiber grating chemical sensor**
Sensors and Actuators B: Chemical, Vol. 258, pp.850-856 (April 2018)
- 3. Fluoride contamination sensor based on optical fiber grating technology**
Optical Fiber Technology, Vol. 38, pp. 136-141(Nov 2017)
- 4. Highly sensitive fiber grating chemical sensors: An effective alternative to atomic absorption spectroscopy**
Optics and Laser Technology, Vol.91, pp 27-31 (1 June 2017)
- 5. Fiber grating sensors parallel to atomic absorption spectrometer.**
Advanced Science Letters, Vol. 21, No. 8, pp2529-2533 (2015).
- 6. Core-cladding mode resonances of long period fiber grating in concentration sensor.**
IOSR Journal of Applied Physics. Vol. 4, Issue 3, pp 41-46 (2013).
- 7. Cd concentration sensor based on fiber grating technology.**
Sensors and Actuators B, 161, pp 818– 823 (2012).
- 8. Detection and determination of manganese concentration in water using a fiber Bragg grating coupled with nanotechnology.**
Applied Optics Vol. 50, No. 32, pp 6033-6038 (2011).
- 9. High-sensitivity concentration sensor based on fiber Bragg grating.**
International Journal of Earth Science and Engineering, Vol. 4, No. 4, pp 104-111 (2011).
- 10. Highly sensitive cadmium concentration sensor using long period grating.**
Sensors and Transducers, Vol. 131, Issue 8, pp 52-60 (2011).
- 11. Concentration and refractive index sensor for methanol using short period grating fiber.**
Optik, Vol. 122, pp 89–91 (2011).

Papers presented in Conference / Symposium/Workshops

1. Multimode Fiber Optic Sensor for Adulterant traces in Edible Oil using Nanotechnology Technique
Materials today Proceedings, Vol. 4 (11, Part 3), 2017, pp. 11910-11914
2. Chemical sensor for nitrate in water using long period optical fiber grating fabricated by point by point method.
Optical Engineering Proceedings-2012, 27-28 July 2012, DOI: [10.1109/ICOE.2012.6409565](https://doi.org/10.1109/ICOE.2012.6409565))
3. γ Radiation induced transmission characteristics studies in plastic optical fibers.
1st International Conference on Physics of Materials and Material Based Devices.
17-19th January 2012, Shivaji University, Kolhapur. (Accepted for publication in Kolhapur University Journal)
4. Fiber grating sensor.
International Conference on Multifunctional Materials
7-9 December 2012 at Banaras Hindu University, Varanasi, Uttar Pradesh.
5. Determination of refractive index of ethanol and hydrogen peroxide using etched fiber Bragg grating.
International Conference on MEMS and Optoelectronics.
22-23 January 2011, Swarnandhra College of Engineering, Andra Pradesh.
6. Temperature dependent bend loss in single mode fiber due to whispering gallery mode using He-Ne source.
International Conference on MEMS and Optoelectronics.
30 October – 1 November 2009, Central Scientific Instrumentation Organization, Chandigarh.
7. Methanol solution concentration sensor using fiber Bragg grating.
National Workshop on Physics and Technology of All optical Communication Concepts and Devices
11-16 October 2007, Indian Institute of Technology, Kharagpur.

Conferences/Workshop/Symposium attended

Sl. No	Conferences/Workshop/Symposium	Place	Date
1	International Colloquium on Nanotechnology	S. D.M. Engineering College, Dharwad	8-9 Jan 2008
2	Photonics Nano Bio Systems Workshop & Photonics India Review 2008	Indian Institute of Science, Bangalore	13-17 Oct 2010
3	Annual Photonics Workshop on Nanophotonics	Cochin University of Science & Technology, Cochin	27-28 Feb 2009
4	Recent Advances in Spectroscopy: Theory, Instrumentation & Applications	Karnatak University, Dharwad	17-18 April 2009
5	Workshop on Fiber-Optics & Applications	PES Institute of Technology, Bangalore	16 April 2010
6	Workshop on Optoelectronics & Photonics	Karnatak University, Dharwad	8 Oct 2010
7	2 nd DAE Symposium on Atomic, Molecular & Optical Physics	Karnatak University, Dharwad	22-25 th Feb 2011
8	Technical Workshop on Micro Nano Photonics	Jain College of Engineering Belagavi	30 th January 2015

Languages Known : English, Hindi & Kannada
Russian (Diploma in Russian)

Research activity: Fabrication of sensors using optical fibers to study the purity of organic compounds, determine the concentration of some dissolved chemicals in drinking water, contamination of edible oil etc. Enhancement of the sensitivity of the sensor by modifying the composition of the optical fibers (FBG and LPG fabrication). To study the sensitivity of the fabricated sensors on treatment with nuclear radiations.

About programme in M. S. : This course is of 4 semesters and initiated by National Council for Science Museums (NCSM), Kolkata in association with BITS Pilani. The course involves the R&D work related to popularization of science and construction of science museums. I completed one semester of the course. During that course I was posted to Science City, Kolkata (Largest Science museum in India) and Visvesvaraya Industrial and Technological Museum, Bengaluru.

Particular Job at these Museums- to study the interest, behavior and response of the different classes of society towards individual exhibits and assist in the R&D of the exhibits and designing new exhibits. Active participation in the programs of the museum to develop the scientific temper in the common people and popularize the science.

References:

1. Prof. S. S. Kubakaddi
Former Professor and, KUD
Professor Emeritus, KLE Technological Universtiy, Hubballi
Ph: 9980373274 Email: sskubakaddi@gmail.com
2. Prof. U. S. Raikar,
Department of Physics, KUD
Ph: 9480480079 Email: usraikar_kud@yahoo.co.in
3. Prof. J. R. Tonannavar
Dept. of Physics, KUD
Ph: 9448375426 Email: jtonannavar.kud.phys@gmail.com
4. Prof. Jayashree Yenagi
Dept. of Physics, KUD
Ph: 9449608066 Email: jyenagi.phys.kud@gmail.com
5. Prof. N. M. Badiger
Chairman, Department of Physics, KUD
Ph. 9740827296 Email: nbadiger@gmail.com
6. Dr. Umesh Hallikeri
Blood Bank Officer
Karnataka Cancer Research Institute, Navanagar, Hubballi
Ph: 7019823205