

Dr.Indumathi T.S.

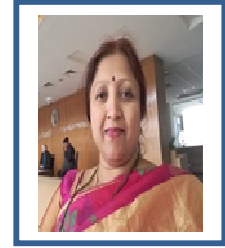
Faculty ID : V04-5147

Designation: Professor

Date of Joining: 01-10-1992 (Dr. A.I.T.) and 6-6-2014 (V.T.U.)

Appointment type: Permanent

Academic Profile: As below



- **EDUCATIONAL QUALIFICATION:**

- 2011 - Ph.D. Visvesvaraya Technological University Dr.Ambedkar Institute of Technology,Bangalore
- 1992 -M.E. Bangalore University UVCE,Bangalore
- 1988- B.E. Bangalore University S.I.T.,Tumkur
- **Total Experience in Years:** Teaching 27 Years 5 Months Research15 years (since 2004 till today)

- **Position held:**

- **a. Lecturer:** Dr.A.I.T., Bangalore
- **b. Assistant Professor:** Dr.A.I.T.,Bangalore
- **c. Associate Professor:** Dr.A.I.T., Bangalore
- **d. Professor:** Dr.A.I.T.,Bangalore
- **e. Professor:**VTU, PG Centre Bangalore Region, Muddenahalli (Since June 6th2014Till Date)
- **On deputation:**April 2014–30 June 2019 ((Years 3 Months)
Special Officer, Karnataka State Higher Education Council, GOK, B'lore

- **Research Profile- (Candidates Guided/Guiding)/ Research funding:**

- **Guided:** Awarded 2 Candidates
- **Guiding:** 5 Candidates
- **Funding:** Ongoing one VGST, Government of Karnataka Research Project of Rs.60 Lakhs

Papers Published in Journals /Conferences (National/International):

Papers/Articles

- Analysis of Fiber Bragg Grating Spectral Characteristics Using Couple Mode Theory for Sensor Applications, Somesh Nandi, Indumathi T.S. published by Springer IMIS international conference in UTS, Sydney, 3-5 July 2019
- Maximizing the Placement of Wavelength Converters in WDM Optical Networks using Adaptive Equal Opportunity Genetic Algorithm Shruthi P.C.,Indumathi T.S., Jagadishpublished by Springer IMIS international conference in UTS, Sydney, 3-5 July 2019
- Analysis of Fiber Bragg Grating Spectral Characteristics using Couple Mode Theory for Sensor Applications, Ramya S.,Indumathi T.S. published by Springer IMIS international conference in UTS, Sydney, 3-5 July 2019
- “Peace Engineering: A Hope For Controlling Conflicts and Promoting Peace.”

in World Engineering Education Forum-Global Engineering Deans Council (WEEF-GEDC) Conference November 12-16, 2018, New Mexico, USA. – Dr.Indumathi T.S.

- Springer International Publishing Switzerland 2016
Book :Environmental Science and Engineering 2016
Traditional health food security as corporate social Responsibility for Pregnant Women Health Monitoring
Authors:Lakshmi.B.N.,Dr.Indumathi.T.S
- Springer India , 18th July2015
BOOK TITLE: Emerging Research in Computing, Information, Communication and ApplicationsORPT: *Probabilistic Modelling of Optimal Routing in Peak Traffic in Optical Network*
Authors: Kavitha G.R, Indumathi T.S.
- Kavitha G.R &IndumathiT.S, “*Novel ROADM Modelling with WSS and OBS to Improve Routing Performance in Optical Network*”, International Journal of Electrical and Computer Engineering (IJECE)**SCOPUS** indexed JournalVol. 6, No. 2, April 2016, pp. 700~707 ISSN: 2088-8708, DOI: 10.11591/ijece.v6i2.8055(IP= 1.2)
- Kavitha G.R &Dr. Indumathi T.S, “*DCDM: Dual Constraint-based Detouring Mechanism to Minimize Burst Loss Probability*”, International Journal of Applied Science and Engineering Research, Vol.4, Issue.6, ISSN 2277-8442, December 2015.pp.908-921
- Lakshmi.B.N, Dr.Indumathi.T.S.,Dr.Nandini Ravi “*An Empherical Study of Decision Tree Classification Algorithms*”International Journal of Science, Engineering and Technology Research (IJSETR),Volume 4, Issue 11,November 2015,ISSN 2278-7798. PP.3705-3709
- Kavitha G.R &Dr. IndumathiT.S,“*An Efficient Technique to Enhance Signal Transmission in Optical Network*”, Global Journal of Engineering Science and Researches, ISSN 2348-8034,Vol.2,Issue 11,pp-61-73, November 2015. (IP= 3.155)
- Dr. Indumathi T.S. and Abhilash T. B. “*Learning of Finite Difference Analysis Operator through Analysis – SVD*” International Journal of Engineering Research Online, A Peer Reviewed International Journal, Volume 3, Issue 3, 2015, ISSN: 2321-7758.Page: 453-457.
- Kavitha G.R, Dr. Indumathi T.S., “*Situational Analysis of Significant Research Contribution in Optical Network*”, International Journal of Computer Applications”, (0975 – 8887) Volume 112, Number 15, 2015,pp 22-25.
- Kavitha G.R, Indumathi T.S .,” *ORPT: Probabilistic Modelling of Optimal Routing in Peak Traffic in Optical Network*”, © Springer India , 2015 18th July..Emerging research in computing information communication and applications DOI 10.1007/978-81-322-2550-8_19 eBOOK ISBN 978-81-322-2550-8 PP; 203-211.
- Raghunandan G, Karthik K, Harshada J Patil, Dr. IndumathiT.S.,”*Design and simulation of a photonic crystal based Optical Sensor for Detecting Ammonia using Transmission Spectrum Analysis*”,International Journal of Science Engineering and Technology Research(IJSETR), Volume 4, Issue 6, June 2015
- Karthik K, Raghunandan G, Harshada J Patil, Dr. Indumathi T.S .,”*Analysis of different models of photonic crystal structures for sensor applications*”, International journal of science, E Engineering and Technology Research(IJSETR), Volume 4, Issue 6, June 2015.
- “Ramya S. and Dr. Indumathi T.S., “*Blocking Probability minimization in WDM with optimal placement of wavelength converters using ETGA*”, Journal of Telecommunications, Volume 30, Issue 1, April 2015,

- Harshada J Patil, Indumathi T.S.,PreetaSharan, “*Layout Design of Photonic Crystal Based Liquid Refractive Index Sensor*”, International Journal of Advancements in Research and Technology, IJOART,Volume 4, Issue 1, January 2015, ISSN: 2278-7763pp.37-41.
- Shruthi P.C. andIndumathi T.S. “*Optimizing the placement of wavelength converters in WDM Optical Networks*”, International Journal of Scientifica and Research Publication, Volume 4, Issue 6, June 2014, ISSN: 2250-3153.
- Kavitha G.R , Dr.Indumathi T.S.,”*Enhanced Constraint-based Optical Network for Improving OSNR using ROADM*”, International Journal of Application or Innovation in Engineering & Management (IJAIEM) ,Volume 3, Issue 3, March 2014.ISSN 2319 – 4847,PP 518-527.
- “Ramya S. and Dr. Indumathi T.S., “*Performance Evaluation of Optical Switch based on Wavelength conversion*” International Journal of Advanced Information Science and Technology(IJAIST), Volume 22, No 22, February 2014, ISSN: 2319:2682, Pg: 137-140.
- KavithaG.R ,Dr.Indumathi T.S., “*Review of Challenges and Standard Research Contribution in Optical Networks*’, International Journal of Scientific and Research Publications, Volume 4, Issue 1, January 2014 1 ISSN 2250-3153,pp 1-7.(IP=3.27)
- Lakshmi.B.N.,Dr.Indumathi.T.S.,Dr.NandiniRavi “A study on C4.5 Decision Tree Classification Algorithm for Risk Predictions during Pregnancy” International Conference on Emerging Trends in Engineering, Science and Technology (ICETEST), Government Engineering College, Thrissur, Kerala, India December 9- 11 2015, doi: 10.1016/j.protcy.2016.05.128, Elsevier Procedia Technology 24 (2016) pp.1542 – 1549.
- Lakshmi.B.N.,Dr.Indumathi.T.S.,Dr.NandiniRavi, ”An Hybrid Approach for Prediction Based Health Monitoring in Pregnant Women” International Conference on Emerging Trends in Engineering, Science and Technology (ICETEST), Government Engineering College, Thrissur, Kerala, India December 9- 11 2015, doi: 10.1016/j.protcy.2016.05.171, Elsevier Procedia Technology 24 (2016) pp.1635 – 1642.
- KarthikK,Dr. Indumathi T. S.,Harshada J Patel “Effects of different structures of photonic crystals on optical sensor design applications” IEEE International Workshop on Recent Advances in Photonics 2015,WRAP ,December 16-17, 2015,Poster Paper,Uploaded for IEEE copyright.
- Lakshmi.B.N.,Dr.Indumathi.T.S.,Dr.NandiniRavi “A Novel Health Monitoring Approach for Pregnant Women” International Conference on emerging Research in electronics, computer Science and Technology (ICERECT 2015) Indexed IEEE Digital Library PES College of Engineering, Mandya, Karnataka December 17-19 2015 DOI: 10.1109/ERECT.2015.7499035,Pages: 324 – 328.
- Kavitha G.R &Dr. Indumathi T.S,“ Designing Contention-Free OBS Network using Constraint-based Detouring Mechanism”, International Conference on Emerging Research in Electronics, Computer Science Technology (ICERECT), PES College of Engineering, Mandya, 17th -19th December 2015. 10.1109/ERECT.2015.7499009,pp. 180 – 185.
- Lakshmi.B.N.,Dr.Indumathi.T.S.,Dr.NandiniRavi “A Comparative Study of Classification Algorithms for Risk Prediction in Pregnancy” TENCON 2015 IEEE Digital Library Macau, China November 1-4 2015 DOI 10.1109/TENCON.2015.7373161 ISSN 2159-3442Print ISBN:978-1-4799-8639-2
- Lakshmi.B.N.,Dr.Indumathi.T.S.,Dr.NandiniRavi “A Comparative Study of Classification Algorithms for Predicting Gestational Risks” International Conference on Computers, communications and Systems, Kanyakumari, India, November 2-3,2015, DOI:2015978-1-4673-9755-1/15/ \$31.00©2015 IEEE.
- Lakshmi.B.N.,Dr.Indumathi.T.S., “*Traditional health food security as corporate social Responsibility for Pregnant Women Health Monitoring*” International Conference on Climate Change and Social-Ecological-

Economical Interface-building: Modeling Approach to Exploring Potential Adaptation Strategies for Bio-resource Conservation and Livelihood Development, Springer International Publishing Switzerland 2016 ISEC, Nagarbhavi, Bangalore, Karnataka May 20-21 2015 DOI 10.1007/978-3-319-31014-5_33 Pp: 549-560.

- Lakshmi.B.N.,Dr.Indumathi.T.S.,Dr.NandiniRavi “*Prediction Based Health Monitoring in Pregnant Women*” International Conference on Applied and Theoretical Computing and communication Technology (iCATccT) Indexed EEE Digital Library October 29-31 2015 Bapuji Institute of Engineering and Technology Davangere, Karnataka, DOI 10.1109/ICATCCT.2015.7456954
- Ramya S. and Dr. Indumathi T.S.,” *Evolutionary design for optimal number of wavelength converters and their placement in WDM*” 2015 International Conference on Applied and Theoretical Computing and Communication Technology (iCATccT) Davangere,29-31 Oct. 2015,) Indexed EEE Digital Library DOI: 10.1109/ICATCCT.2015.7456895,pp. 273 – 279.
- Kavitha G.R &Dr. Indumathi T.S,“*ETPC: Enhancing Transmittance Power & Capacity in Optical Network*”,5th IEEE- ICCSP’16, Adhiparasakthi Engineering College, Melmaruvathur, Tamilnadu, India.(Communicated).
- Kavitha G.R &Dr. Indumathi T.S,“*ORPT: Probabilistic Modelling of Optimal Routing in Peak Traffic in Optical Network*”, Third International conference on Emerging Research in computing, information, communication and applications, ERCICA - 2015, NMIT, Bangalore, July 31- August 1,2015,pp.203-211.
- Kavitha G.R & Dr. Indumathi T.S, “*Modelling for Enhancing Quality of Signal in Multi-channel Optical Network*”, Proceedings of the 2015 IEEE International Advance Computing Conference (IACC), B.M.S. College of Engineering, Bangalore, India, June 12-13,2015.DOI:[10.1109/IADCC.2015.7154699](https://doi.org/10.1109/IADCC.2015.7154699)ISBN 978-1-4799-8046-8
- HarshadaPatil ;NischithaR.Indumathi T. S. ; PreetaSharan,” *Liquid sensor based bio-chip for DNA analysis of cancer using photonic crystal*“ International Conference on Optical and Photonic Engineering (icOPEN 2015), Singapore, Proc. SPIE Digital Library 9524, (July 17, 2015); doi:10.1117/12.2189606,pp.95241Y -95241Y-6.
- H Patil, V Sane, G Sriram, TS Indumathi, P Sharan “*Gallium arsenide based surface plasmon resonance for glucose monitoring*”,International Conference on Optical and Photonic Engineering (icOPEN 2015), Singapore,Proc. SPIE 9524, doi:10.1117/12.2189668 pp.95242E-95242E-8
- Shruthi P. C., Indumathi T. S., “*Wavelength Converter Placement Optimization in WDM Network*”, International Conference on Communication and Signal Processing”, April 2-4, 2015, India. ISBN: 978-1-4799-8080-2., (IEEE Advancing Technology for Humanity)pp.1844-1848.

- **Books Published / IPRs/ Patents:**Two Patents

- a. Published, The Patent Office Journal No. 09/2019 Dated 01/03/2019, Patent Office, Govt. of India
- b. Filed on 12-3-2019

- **Awards (if any):** ‘Women Achiever’s Award’ during International Women’s Day Celebrations –8th March 2019, The Institution of Engineers (India), Karnataka State Centre, Bengaluru

- **Workshop/Seminar/Conference organized:** 12Pgms.

- **Any other Information:**

- Invited as speaker/Resource Person, Session Chair and participated in International and National Conferences, Global Engineering Deans Council & Asian Engineering Deans Council Summits in India and other countries USA, Taiwan, Australia, South Korea, China, Canada, Singapore.
- Invited as Chief Guest/Guest of Honor for many Technical Programs of INDIAN SOCIETY FOR TECHNICAL EDUCATION (ISTE), The Institute of Electrical and Electronics Engineers (IEEE) and Women's Day celebrations.
- Invited to Organize Technical Track in IMIS international conference in UTS, Sydney, 3-5 July 2019
- Served as Hon. National Treasurer for 5 Years in ISTE New Delhi
- Executive Council Member ISTE since 2014, New Delhi
- Served as Chair, IEEE Photonics Society, Bangalore Chapter for two years
- Member and Member Convener for Local Inquiry Committee in VTU for inspecting the Engineering Colleges for granting Continuation/Permanent /Extension of affiliation.
- Member Convener in different committees in framing guidelines for Public Universities in Karnataka at KSHEC.
- Member of Advisory Committee Member for INDIAN SOCIETY FOR TECHNICAL EDUCATION, Working Professionals Learning Project (ISTE-WPLP) to discuss and implement National Academic Programs.
- Served as BOE in VTU and BOS in VTU Affiliated Institutions & Sri Padmavati Mahila Visvavidyalayam, Tirupati Women's University, Andhra Pradesh.
- Chairman and Committee member in various Award Committees, ISTE, New Delhi
- **Contact Information:** indumathi_ts@yahoo.co.in