

## Faculty Profile

Name : Dr B R Vatsala  
Designation : Associate Professor and Deputy Dean (AA)  
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**About me:** I am Dr Vatsala B R working as associate professor, in the department of Computer Science and Engineering at the National Institute of Engineering, Mysuru. Currently I am Deputy Dean(Academic Affairs) of the institution.

My research interests are in the field of Internet of Things and Computer Networks. I am also interested in the areas of processor design and switching circuits.

I have been awarded with top 1% and silver medal certificate for completing NPTEL course on “switching Circuits and logic design” from IIT, Kharagpur. I have also been awarded with top 2% and gold medal certificate for completing NPTEL course on “Introduction to Internet of Things” from IIT, Kharagpur.

I published more than 50 research papers in reputed International Journals and Conferences.

### **Qualification:**

Ex: B.E. (VTU.), MTech (VTU), Ph.D. (VTU, Belagavi)

### **Courses Taught:**

#### **For UG**

- Parallel Computing
- Compiler Design
- Automata Theory and Computation
- Cyber Security
- Microcontrollers

#### **For PG**

- Internet of Things

### **Publications:**

#### **Journal Publications**

1. Abhishek K Rashmi M R, **B R Vatsala**, Veena M, Mayura D Tapkire, C K Vanamala, Shruthi R (2025): ” Hypercomplex Neural Network Based Elderly Activity Recognition For Intelligent Healthcare Systems ”, *International Journal of Environmental Sciences*, Vol 11, issue 7, pp. 2069-2079, doi: <https://doi.org/10.64252/x57dm802>

2. Adarsh K Poojary Rashmi M R, **B R Vatsala**, Sharath Chandra H S, Ishika, (2024):” Traffic Sign Detection Using Machine Learning”, *YMER*, vol 23, issue 11, pp 785-791.
3. **B R Vatsala** , Dr C Vidya Raj, Rashmi M R (2024): “ Prioritizing flows for internet of things built on visible light communication” *International Journal of Information Technology*, Vol 16, Issue 8, Springer Nature Singapore.
4. **B R, Vatsala** , Chitradurga, Vidyaraj. (2022). Priority based flow control protocol for internet of things built on light fidelity. *International Journal of Electrical and Computer Engineering (IJECE)*. 12. 4449. 10.11591/ijece.v12i4. pp4449-4456.
5. **B R Vatsala** and Dr C Vidya Raj (2019): “Performance Analysis of Internet of Things using Visible Light Communication ”, *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, Vol. 9, Issue 2S, pp 42-45, December 2019, ISSN: 2278-3075, DOI: 10.35940/ijitee.B1023.1292S19.
6. **B R Vatsala** and Dr C Vidya Raj (2019):“Priority Based Algorithmic Design of Flow Control Protocol for IoT using LiFi”, *International Journal for Research in Engineering and Management (IJREAM)*, Vol. 5, Issue 1, pp 357-361, April 2019, ISSN: 2454-9150, DOI: 10.18231/2454-9150.2019.0324.
7. **B R Vatsala** and Dr C Vidya Raj (2019):“ Analysis of Smart Applications using Internet of Things”, *International Journal of Advanced Research in Computer and Communication Engineering (IJARCCE)*, Vol. 8, Issue 3, pp 109-113, March 2019, ISSN: 2278-1021, DOI: 10.17148/IJARCCE.2019.8321.
8. **B R Vatsala** and Dr C Vidya Raj (2014):” Internet of Things: Usage of LiFi and Need for Flow Control Protocol”, *International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCCE)*, Vol. 2, Issue 8, pp 2321-8169, August 2014, ISSN: 2321-8169.

#### Conference Proceedings:

1. Padmavathi. K, B. R. Vatsala, Niranjana. A. Bhat and Srinidhi. V (2025): "FixNGo: a Platform for on-Demand Local Home Services," 2025 IEEE International Conference for Women in Innovation, Technology & Entrepreneurship (ICWITE), Bangalore, India, 2025, pp. 1-5, doi: 10.1109/ICWITE64848.2025.11307148
2. Rashmi M R ,**B R Vatsala** , Sachin R ,Sachin B S , Krushik Gowda K S, Harsha R (2025) :Plant Disease Prediction Using Machine Learning” International Conference on Sustainable Technology -2025, The National Institute of Engineering, Mysore
3. Sushma M V, **B R Vatsala** (2023): “Credit Card Fake Revealing Analysis and Prediction of Algorithms” 14th International Conference on Advances in Computing, Control, and Telecommunication Technologies, ACT 2023ACT, Grenze International Journal of Engineering and Technology, vol 9, issue 1, pp. 1854-1859

4. **B.R. Vatsala, Dr C Vidya Raj (2020):**” Performance Evaluation of TCP Variants for IoT Built on Visible Light Communication”, ICDSMLA 2020. Pune, India
5. **R Vatsala, Dr C Vidya Raj (2019):** “Performance Analysis of Internet of Things using Visible Light Communication”, International Conference on data engineering and communication systems 2019, RNSIT,Bengaluru, 19-20 December 2019
6. **B R Vatsala, Dr C Vidya Raj (2018):**” Algorithmic Design of Flow Control Protocol for IoT using LiFi”, IEEE International Conference on Current Trends Towards Converging Technologies- 2018, SVSCE, Coimbatore
7. **B R Vatsala, Dr C Vidya Raj (2017):** “Analysis of smart applications using Internet of Things”, International symposium on cloud computing and data analytics 2017, TEQIP-CSI, NIE, 17-18 Mar 2017
8. **B.R. Vatsala, Dr C Vidya Raj (2012):** “CPU Load Based Countermeasure Technique for Intelligent DoS Attack Targeting Firewalls” , International Conference on Emerging Research in Electronics, Computer Science and Technology 2012, PESCE, Mandya,21-22 December 2012

#### **Book Chapters:**

1. **Vatsala, B.R., Vidya Raj, C. (2022):** “Performance Evaluation of TCP Variants for IoT Built on Visible Light Communication”. Lecture Notes in Electrical Engineering, vol 783. Springer, Singapore
2. **B.R. Vatsala, Dr C Vidya Raj (2013):** “CPU Load Based Counter measure Technique for Intelligent DoS Attack Targeting Firewalls”, Springer series, 248, 139-144

#### **Other achievements:**

#### **Research Project:**

Working on a ICSSR sponsored project titled “Investigating Social Engineering cyber attack using AI-Generated Phishing Emails, Phone Scams with Generative AI,” granting year 2025

#### **PhD Guidance:**

Guiding: 2

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