

## **Dr. G. Vijaya Kumar**

### **Lecturer**

**Department of Computer Science**

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**Born:** 4<sup>th</sup> February 1979

### **Education:**

- **Ph.D. (CSE)**– Jawaharlal Nehru Technological University, Anantapuramu, 2017
- **M.Tech (CSE)** – Jawaharlal Nehru Technological University, Hyderabad, 2006 (First Division with Distinction).
- **B. Tech (CSE)** – Jawaharlal Nehru Technological University, Hyderabad, 2002 (First Division).
- **Intermediate (M.P.C)** – Board of Intermediate Education, A.P. India, 1997 (First Division with Distinction).
- **S.S.C.** – Board of Secondary Education, A.P., India, 1995 (First Division with Distinction).

### **Professional Experience: 17 Years**

- **Assistant Professor of Computer Science & Engineering**, during 1<sup>st</sup> June' 2004 – 30<sup>th</sup> May 2005 SAFA Engineering College, Kurnool.
- **Assistant Professor of Computer Science & Engineering**, during 1<sup>st</sup> June' 2005 – 30<sup>th</sup> June 2017 G. Pulla Reddy Engineering College, Kurnool.
- **Associate Professor of Computer Science & Engineering**, during 1<sup>st</sup> July' 2017 – 23<sup>rd</sup> Aug 2021. G. Pulla Reddy Engineering College, Kurnool.
- **Lecturer in Computer Science Department**, during 24<sup>th</sup> Aug 2021 – till date S.C.I.M. Govt. College, Tanuku, West Godavari.

### **BoS Membership: (1)**

- Educationalist of Board of Studies in Computer Science & Applications Department of KVR Government College for Women (Autonomous), Kurnool, for the period of 2 years 2017-18 and 2018-19.

#### **Professional Society Memberships: (4)**

- Valued IEEE Member of Institute of Electrical and Electronics Engineers (IEEE) for 11 years since 2010. (Member # 91207790)
- Life Time Member of International Association of Engineers (IAENG) since 2013. (Member # 107056)
- Permanent Member of International Association of Computer Science and Information Technology (IACSIT) since 2013. (Member # 80347389)
- Associate Member of Universal Association of Computer & Electronics Engineers (UACEE) since 2013. (Member # AM1004454)

#### **Patents: (1)**

- Patent Application No. 201941001280
- Title: A Smart Comb with Machine Learning
- Published in the Official Journal of the Indian Patent Office
- Issue No: 04/2019 Dated 25/01/2019
- Date of Filing/Priority: 10-01-2019
- Date of Publication: 25-01-2019
- International Classification: A45D24/10

#### **Books: (1)**

Book Title: Access Point Selection Algorithms for Wireless Mesh Networks

Publisher Name: LAP Lambert Academic Publishing (International Publisher)

Year of Publication: 2018

ISBN Number: 978-613-4-95181-4

Web Link: <https://www.morebooks.de/store/gb/book/access-point-selection-algorithms-for-wireless-mesh-networks/isbn/978-613-4-95181-4>

#### **International Journals: (20)**

Total no. of publications = 25 (since 2010)

No. of journals = 20

No. of conferences = 5

UGC-CARE List Group 2 Journals (Scopus) = 8

UGC-CARE List Group 1 Journals (Group 1) = 4

1. G Vijaya Kumar, Y Vasudeva Reddy and Dr M Nagendra, "Current Research Work on Routing Protocols for MANET: A Literature Survey", International Journal on Computer Science and Engineering (IJCSE), Vol. 02, No. 03, May-2010, 705-712.
2. G Vijaya Kumar, "The Impact of Mobility on the Performance of AODV and DSR using NCTUns 6.0 Simulator", International Journal of Computer Science and Technology (IJCST), Vol. 4, Issue 2, No. 2, Apr-2013, 249-255.

3. G Vijaya Kumar, A Vishnuvardhan Reddy and Dr R Praveen Sam, "A Study on Medium Access Control Protocols in Wireless Mesh Networks", International Journal of Advanced Research in Computer Engineering & Technology (IJARCET), Vol. 3, Issue 5, May-2014, pp: 1832-1838.
4. A Vishnuvardhan Reddy and G Vijaya Kumar, "Simulation Based Performance Analysis of Snoop and obTCP for Vehicle to Vehicle Communication", International Journal of Advanced Research in Computer and Communication Engineering (IJARCCE), Vol. 3, Issue 5, May-2014, pp: 6539-6543.
5. T Manuja and G Vijaya Kumar, "Efficient Information Extraction Using Web Services", International Journal of Advanced Research and Innovation -Vol.7, Issue. II, July-2014, pp: 579-584.
6. G Vijaya Kumar and Dr C Shoba Bindu, "A Study on Access Point Selection Algorithms in Wireless Mesh Networks", International Journal of Advanced Networking and Applications (IJANA), Vol. 6, Issue 1, June – 2014, pp: 2158-2167. **(UGC Approved Journal)**
7. O. Sirisha and G Vijaya Kumar, "An Analysis of various routing metrics to enhance an efficient routing phenomenon in Wireless Mesh Networks", IRACST – International Journal of Computer Networks and Wireless Communications (IJCNWC), Vol.5, No 4, August 2015, pp: 605-608.
8. A Madhavi Latha and G Vijaya Kumar, "Streaming Data Analysis using Apache Cassandra and Zeppelin", International Journal of Innovative Science, Engineering & Technology (IJISSET), Vol. 3 Issue 10, October 2016, pp.8-15.
9. G Vijaya Kumar and Dr C Shoba Bindu, "A New Method of User Association in Wireless Mesh Networks", International Journal of Communication Networks and Information Security (IJCNIS), Vol. 9, No. 1, April 2017, pp. 12-21. **(Scopus Indexed Journal).**
10. R Bhagya Sri and G Vijaya Kumar, "A Survey on Proxy Re-Encryption Scheme for Providing Security in Cloud", International Journal of Scientific Engineering and Technology Research (IJSETR), Vol. 6, Issue. 13, April 2017, pp. 2638-2639.
11. R Bhagya Sri and G Vijaya Kumar, "KGC proxy re-encryption scheme for Data Security in Cloud", International Journal of ICT and Management (IJICTM), Vol. 5, Issue 2, December 2017. ISSN No: 2026-6839. (2016-17).
12. G Vijaya Kumar and Dr C Shoba Bindu, "Liberal method of access point selection in wireless mesh networks", International Journal of Communication Networks and

Distributed Systems (IJCND), Vol. 19, No. 2, 2017, pp. 136-157. **(Scopus Indexed Journal)**.

13. Shabana Shaik, G. Vijay Kumar, "A Survey on Cloud Storage Auditing Protocols", March 18 Volume 4 Issue 3, International Journal on Future Revolution in Computer Science & Communication Engineering (IJFRSCE), PP: 241 – 244. **(UGC Approved Journal)**
14. Shabana Shaik, G Vijaya Kumar, "Effective Approach for Secure Outsourcing of Key Updates in Cloud", Journal of Emerging Technologies and Innovative Research (JETIR), Volume 5, Issue 7, July 2018, pp: 288-296. **(UGC Approved Journal)**
15. G Vijaya Kumar, B Rajesh, C V Chakradhar, S Shabana Shaik. "Cloud Storage Auditing Protocol for Security Key Updates ", International Journal of Engineering and Advanced Technology (IJEAT), Volume-8, Issue-2S2, January 2019.pp: 183-187 **(Scopus Indexed Journal)**
16. J.Mehanaz Begum, G Vijaya Kumar. "Feebly-Administered Deep Learning for Client Appraisal Soppiness Classification", International Journal of Recent Technology and Engineering (IJRTE), Volume-7, Issue-6S4, April 2019. PP: 327 - 331. **(Scopus Indexed Journal)**.
17. B. Muni Lavanya, C. Shoba Bindu, and G. Vijaya Kumar. "Internet Traffic based Channel Selection in Multi-Radio Multi-Channel Wireless Mesh Networks." IJCNIS, Vol.11, No.2, pp: 2195-2208, August 2019. **(Scopus Indexed Journal)**
18. B. Muni Lavanya, C. Shoba Bindu, and G. Vijaya Kumar. "User Throughput based Channel Assignment Method for IEEE 802.11 Multi- Channel Multi-Radio Wireless Mesh Networks", Journal of Advanced Research in Dynamical and Control Systems (JARDCS), vol. 11, issue.05, pp: 2195-2208, May 2019. **(Scopus Indexed Journal)**
19. J.Mehanaz Begum, G.Vijay kumar. "Polarity Classification Through N Gram Machine Learning Approach", Journal of Engineering Sciences (JES), Volume-10, Issue-9, Sep 2019. PP: 711 - 717. **(Scopus Indexed Journal)**
20. G Vijaya Kumar and Patil Manogna. "Machine Learning Prediction Models Through the Performance Evaluation of Diabetic Classification: A Survey", TEST Engineering & Management Journal, Volume 82, Jan-Feb 2020 Issue, PP: 8684-8695 (2019-20) **(Scopus Indexed Journal)**

### International Conferences: (5)

1. B. Muni Lavanya, C. Shoba Bindu, and G. Vijaya Kumar. "A study on channel assignment algorithms for multi-channel multi-radio wireless mesh networks." In 2017 **IEEE** International Conference on Intelligent Sustainable Systems (ICISS), pp. 568-575, 2017.
2. G Vijaya Kumar and Dr C Shoba Bindu, "Improving Performance of Wireless Mesh Networks Through User Association Method", 2<sup>nd</sup> International Conference on Computer and Communication Technologies (IC3T-2015), Lecture Notes in Computer Science, Springer, July-2015. **(Scopus Indexed)**
3. Shabana Shaik and G Vijaya Kumar. "Cloud Storage Auditing Protocol for Security Key Updates". In International Conference on Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems (ICSPECS-2019), January 2019, GPREC.
4. G Vijaya Kumar and Patil Manogna. "Machine Learning Prediction Models Through the Performance Evaluation of Diabetic Classification: A Survey" ICCCEEE 2020 10-11 January 2020 GPREC.
5. Sujatha V, Shoba Bindu C, Vijay Kumar G and Dileep Kumar Reddy P. "An Adaptive Channel Assignment Strategy for Multi-Radio Multi-Channel Wireless Mesh Networks with Mobile Nodes Based on Internet Traffic" 2nd International Conference On Computational And Bio Engineering, organized by Sri Padmavati Mahila Viswavidyalayam, Tirupati, during 4<sup>th</sup> & 5<sup>th</sup> Dec, 2020.

### Achievements: (7)

- Cisco Certified CCNA Instructor.
- Reviewer of SCIE/SCOPUS/Web of Science etc. indexed journal "Concurrency and Computation: Practice and Experience (CCPE)".
- Editorial Board Member in American Journal of Networks and Communications (AJNC), New York.
- Editorial Board Member in Universal Journal of Computer Sciences and Communications
- Guest Editor for the special issue: Title: *Artificial Intelligence in Electrical Power & Energy American Journal of Electrical and Computer Engineering, August, 2020*
- APSET- 2013 Qualified.

- GATE – 2002 Qualified.
- Top 5% Ranker of NPTEL-AICTE 4-week MOOC course on “Teaching and Learning in Engineering (TALE)” during Feb-Mar 2019.
- Top 2% Ranker of NPTEL-AICTE 8-week MOOC course on “TALE2: Course Design and Instruction of Engineering Course” during Jul-Sep, 2019.
- Top 1% Ranker of NPTEL-AICTE 12-week MOOC course on “NBA Accreditation and Teaching – Learning in Engineering (NATE)” during Jan-Apr, 2020.
- PhD Guideship in JNTUA University during 2020-21 and 2021-22.

### **Guest Lectures Delivered as Resource Person: (9)**

1. “Introduction to Unix Operating System”, A guest lecture delivered in a National Level Workshop “Linux Administration & Advanced Programming”, sponsored by AICTE – ISTE, 2007.
2. “Research Trends in Networking and Security” Sponsored by APSCHE and UGC, Organized by CSE Dept., JNTUA collge of Engg., Anantapuramu, - A guest lecture delivered on “Network Simulation using NS2”, 2013.
3. “Simulation of Wired/Wireless Networking Using NS2”, Resource Person at One-Day Workshop by Dept. of MCA, Intell Engineering College, Anantapuramu, 24-Jan-2015.
4. Resource Person of “Linux & C”, Faculty Training Program, by Dept. of CSE, GPREC, on 07-Feb-2015.
5. Coordinator of Two-Day National Level Workshop cum Championship “NNSC-2014” organized by Dept. of CSE, GPREC, in association with IIT-Delhi and Network Bulls, Gurgaon, on 21-22, Nov-2014.
6. In House Training Program - Faculty Trainer on “Linux Administration” on 19<sup>th</sup> November 2015.
7. Chief Guest in National Level Student Technical Symposim – IT Prasthan – 2K16 @ RGM CET, Nandyal on 19<sup>th</sup> March 2016.
8. Resource Person of One Day Workshop on "Computer Networks Simulation Using NS2", conducted by CSE Dept., GPREC, on 04th October 2016.
9. Resource Person of One Day Skill Development Program on Networking conducted by CSE Dept., GPREC, on 26<sup>th</sup> November 2018.

### **Certification Courses Completed: (8)**

1. IBM Certification Course on “What is Data Science?” during May 2020.
2. Coursera Certification Course on “AI for Everyone” during May 2020.
3. Michigan University Certification Course on “Capstone: Retrieving, Processing, and Visualizing Data with Python” during May 2020.
4. Michigan University Certification Course on “Using Python to Access Web Data” during May 2020.
5. Michigan University Certification Course on “Python Data Structures” during May 2020.
6. Michigan University Certification Course on “Programming for Everybody (Getting Started with Python)” during May 2020
7. New York State University Certification Course on “Blockchain basics” during May 2020.
8. Cisco CCNA Certification Course during 2015-16.

### **Orientation Courses: (2)**

1. Online One Month Orientation Programme conducted by Teaching Learning Centre, Ramanujan College, University of Delhi, during 19 Nov – 18 Dec 2021.
2. 5-Day Residential Faculty Induction Programme conducted by CCE at ANU, Guntur, during 29 June – 03 July 2022.

### **MOOC Courses: (4)**

1. AICTE-NPTEL 8-week MOOC course on “Introduction to Machine Learning” during Aug-Oct 2018.
2. NPTEL-AICTE 4-week MOOC course on “Teaching and Learning in Engineering (TALE)” during Feb-Mar 2019. (Secured Elite + Silver -Top 5% Ranker in Results).
3. NPTEL-AICTE 8-week MOOC course on “TALE2: Course Design and Instruction of Engineering Course” during Jul-Sep, 2019. (Secured Elite + Gold -Top 2% Ranker in Results).
4. NPTEL-AICTE 12-week MOOC course on “NBA Accreditation and Teaching – Learning in Engineering (NATE)” during Jan-Apr, 2020. (Secured Elite + Gold -Top 1% Ranker in Results).



### **International Workshops: (3)**

1. “Computer Networks”, Indo-US Collaboration for Engineering Education, 13-17 June 2011 at MITS, Madanapalle, AP.
2. “Cloud Computing Fundamentals”, University of Melbourne, Australia, Manjrasoft Pvt. Ltd. Australia, GPREC, 23 Dec 2011.
3. Attended One Day workshop on “Cloud, Big Data and IoT” held on 12<sup>th</sup> Dec 2015 at GPREC.

### **National Workshops/FDPs/STTPs: (38)**

1. “Methods of Improving Teaching Skills”, National Assessment and Accreditation Council (NAAC), National Institute of Technical Teachers Training & Research (NITTTR), India, during 22-24 March 2006 at GPREC.
2. “Linux Administration & Advanced Programming”, AICTE – ISTE, during 12-16 March 2007 at GPREC.
3. “Systems Integration: The Microsoft way”, Microsoft & IEG/JKC, 20 Feb, 2009 at GPREC.
4. “Faculty Enablement Program”, at Infosys Technologies Ltd., Hyderabad during 9-12 June 2009.
5. “Object Oriented Analysis and Design using UML with Rational Rose & RUP”, IBM Software Education, during 2-4 December 2009 at GPREC.
6. “Network Simulator Tool NS – 2”, G.Pulla Reddy Engineering College, Kurnool, during 28-29 January, 2011.
7. “Developing NS-2 for Network Simulation”, at VIT University, Vellore, during 27-29 January, 2012.
8. “Simulation of Wired and Wireless Networks”, at NIT Surathkal, during 20-22 June 2012.
9. “Cloud Computing”, at GPREC on 9 December 2012.
10. “Mobile Application Development Using Android”, by Infosys, Hyd, at CBIT Hyd, 19-21 March 2013.
11. “Network Simulation for MANETs, VANETs and Sensor Networks using NS2”, at VIT University, Chennai, during 8-9 March 2014.
12. “Wireless Networks & Network Simulators” at ISTE-CMR Technical Campus, Hyderabad, during 24-25 January 2014.



13. “NPTEL awareness Workshop” organized by GPREC and sponsored by MHRD-IIT Madras, on 19 Sep 2015.
14. Cisco CCNA Course Training for Modules 1 and 2 at Trident Cisco Academy Resource Centre, Bhubaneswar, Odisha, during 2-Oct to 16-Oct, 2015.
15. Cisco CCNA Course Training for module 3 and module 4 at Trident Cisco Academy Resource Centre, Bhubaneswar, Odisha, during 12<sup>th</sup> April – 30<sup>th</sup> April 2016.
16. Six Day Faculty Development Program on “Software Engineering” Organized by E & ICT Academy, NIT Warangal at GPREC from 5-10 Feb 2018.
17. AICTE-NPTEL one-week FDP through MOOCs on “Introduction to Machine Learning” during Aug-Oct 2018.
18. NPTEL-AICTE half-week FDP on “Teaching and Learning in Engineering (TALE)” during Feb-Mar 2019.
19. AICTE sponsored 3-Day FDP on Student Induction Organised at Chadalawada Ramanamma Engineering College (Autonomous), Tirupati during 10-12 June 2019.
20. Two-Week FDP on “Big Data Analytics for Cyber Physical Systems: Research Challenges and Opportunities” conducted by Sri Venkateswara College of Engineering, Tirupati, during 09-22 Dec 2019.
21. NPTEL-AICTE One Week FDP on “TALE2: Course Design and Instruction of Engineering Course” during Jul-Sep, 2019.
22. NPTEL-AICTE Ten Days FDP on “NBA Accreditation and Teaching – Learning in Engineering (NATE)” during Jan-Apr, 2020.
23. AICTE-ATAL Five Days FDP on “Block Chain” organized by JNTUA College of Engineering, Pulivendula, during 20-24 April, 2020.
24. IEEE-IEI One Week Online FDP on “Software Project Management” organized by Chitkara University, Punjab, during 11-16 May 2020.
25. APSSDC One Month Online FDP on “Data Science” organized by APSSDC during 01-30 June 2020.
26. One Week Online FDP on “Faculty Awareness Program on NAAC Accreditation” organized by Shri Chhatrapati Shivajiraje College of Engineering, Pune, during 10-15 May 2020.
27. AICTE sponsored One Week Short Term Training Programme (STTP) on “Data Analytics and Machine Learning using R & Python” organized by JNTUACEA during 13<sup>th</sup> – 18<sup>th</sup> July 2020.

28. One Week Online FDP on “Intellectual Property Rights” conducted by Research and Development Cell, GPREC, during 13-17 July, 2020.
29. Three Day FDP on “Recent Trends in Technology and Teaching Learning Methodology” organized by SAGE University, Indore, during 9-11 July 2020.
30. Five Day FDP on “LaTeX and its Applications for Researchers” organized by Vidyavardhaka College of Engineering, Mysuru, during 20-24 July 2020.
31. One Week National Level Online FDP on “Computer Networks Simulation using NS2” organized by Mahathma Gandhi Institute of Technology, Hyderabad, in Association with Telangana Academy for Skill and Knowledge (TASK), during 10-14 August 2020.
32. AICTE Training And Learning (ATAL) Academy Online FDP on “Block chain” conducted by JNTUA College of Engineering (Autonomous), Anantapuramu, during 8-12 September 2020.
33. AICTE Sponsored Two Week Online FDP on “Opportunities in Artificial Intelligence and Enabling Technologies for Internet of Things (IoT)” organized by JNTUACEA, Anantapuramu, during 12-23 October 2020.
34. Three Day Workshop on “R Programming” conducted by Malla Reddy Institute of Technology and Science, Hyderabad, during 28-30 July 2020.
35. 5-Day Online FDP on “Electric Vehicles – Technologies and Challenges” conducted by G Pulla Reddy Engineering College (Autonomous), Kurnool, during 18-23 Oct 2021.
36. One Week FDP on “Deep Learning: Perspectives, Trends and Research Prospects” conducted by G Pulla Reddy Engineering College (Autonomous), Kurnool, during 25-30 Oct 2021.
37. One Week Online STTP on “Internet of Things and Machine Learning” conducted by G Pulla Reddy Engineering College (Autonomous), Kurnool, during 26 Sep -01 Oct 2021.
38. 5-Day FEP on “Hybrid and Blended Learning” conducted by YVNR Govt Degree College, Kaikaluru, during 21-25 Feb 2022.

**Subjects taught:**

1. Computer Graphics
2. Operating Systems
3. Advanced Unix Programming
4. Computer Architecture

5. Compiler Construction
6. Theory of Automata
7. Computer Networks
8. Database Management Systems
9. C Programming
10. Java Programming
11. Internet Protocols
12. Introduction to Information Systems
13. Advanced Information Systems
14. Object Oriented Programming through C++
15. Software Project Management
16. Web Programming
17. Design Patterns
18. Advanced Computer Networks
19. Design and Analysis of Algorithms
20. Computer Programming
21. Data Structures