

## RESEARCH INTERESTS

- Cyber Security, Artificial Intelligence, Cloud Computing and Internet of Things

## APPOINTMENTS

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<b>Assistant Professor in Computer Information Systems</b> University of Houston, USA	Dec 2021 – till date.
<b>Postdoctoral Associate and Adjunct Faculty</b> Florida International University, USA	Mar 2018 – Dec 2021
<b>Assistant Professor in Computer Science</b> Osmania University, India and Kakatiya Institute of Technology & Science, India	Aug 2005 - Mar 2018
<b>Software Engineer</b> Epsilon Technologies, India	Oct 2001 - Aug 2005

## EDUCATION

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<b>Ph.D. in Computer Science and Engineering</b> Jawaharlal Nehru Technological University, India	Apr 2015
<b>Master of Technology in Computer Science and Engineering</b> Osmania University, India	Jun 2007
<b>Master of Computer Applications</b> Osmania University, India	Oct 2001

## AWARDS & RECOGNITION

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<b>Microsoft Educator Advisory Council Member</b> By Microsoft	Sep 2020
<b>Microsoft Technology Associate Certified (.Net Fundamentals)</b> By Microsoft	Feb 2015
<b>Travel Grant Award</b> By Computer Society of India (CSI)	Oct 2014
<b>Special Invitation by Board of Study (BOS)</b> Osmania University, India To design syllabus of <b>Web Programming</b> for the students of Computer Science and Engineering	Mar 2009
<b>Best Research Paper Award</b> National Conference WAVES, India Paper titled " <b>Timer based caching technique applied to Dynamic Source Routing for MANETs</b> "	Feb 2008

## RESEARCH PROJECTS EXECUTION

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### Cyber Test Automation and Monitoring (CTAM)

Mar 2018-Dec 2021

Team Lead – Development Team

Funded by **U.S. Department of Defense (DoD)** – Test Resource Management Center (TRMC)

### Waste Information Management System

Oct 2020-Dec 2021

Team Lead – Development Team

Funded by **U.S. Department of Energy (DoE)** – Environment Management (EM)

### Health Monitoring with IoT Wearable Devices using Machine Learning and Edge Computing

Aug 2018-Aug 2019

Team Member – Development Team

Funded by **National Science Foundation (NSF)**

## BOOK & BOOK CHAPTER PUBLICATION

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### Evaluation of IoT Data Visualization Tools & Techniques

Mar 2020

Data Visualization-Trends and Challenges Towards Multidisciplinary Perception

Springer Publications - ISBN 978-981-15-2282-6

### Big Data Analytics for Childhood Pneumonia Monitoring

Jan 2017

Cloud Computing systems and Applications in Healthcare

IGI Global - ISBN 978-1522510024

### Cloud based Wireless Infrastructure for Health Monitoring

Jan 2017

Cloud Computing systems and Applications in Healthcare

IGI Global - ISBN 978-1522510024

## SUBJECT TAUGHT – PRIMARY INSTRUCTOR

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Problem Solving with C	Advanced Machine Learning
Object Oriented Programming with C++	Artificial Intelligence
.NET programming	Cloud Computing
Advanced Java Programming	Mobile Computing
Web Programming	Computer Graphics
Middleware Technologies	Database Systems
Operating Systems	Senior Project [ <b>Online Course</b> ]
Scripting Languages	IoT Analytics with Cloud Services [ <b>Online Course</b> ]
Data Structures	Adv. IoT Analytics with Cloud Services [ <b>Online Course</b> ]

## CURRICULUM DEVELOPMENT AND ONLINE COURSE DEVELOPMENT

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### Senior Design-I

Jan 2020

Fully Online Course for Undergrad

### IoT Analytics with Cloud Services

Aug 2020

Fully Online Course for Undergrad

### Advanced IoT Analytics with Cloud Services

Aug 2020

Fully Online Course for Grad

<b>Advanced Machine Learning</b> Face-to-Face Course for Grad	Aug 2018
<b>High Performance Computing</b> Face-to-Face Course for Grad	Aug 2018
<b>Object Oriented Programming with C++</b> Face-to-Face Course for Undergrad	May 2009
<b>Web Programming</b> Face-to-Face Course for Undergrad	May 2008

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#### EDITORIAL / REVIEWER BOARD

- Reviewer for Springer International Journal of Systems Assurance Engineering and Management.
- Reviewer for International Scientific Academy of Engineering & Technology.
- Coordinator & Editorial Board, Proceedings of National Workshop on Mobile Computing held at Department of CSE, Osmania University, Hyderabad.
- Reviewer for International Journal of Next Generation Networks, many other Journals and Conferences.

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#### RESEARCH PUBLICATION

1. Jayesh Soni, **Suresh K. Peddoju**, Nagarajan Prabakar and Himanshu Upadhyay, "Comparative Analysis of LSTM, One-Class SVM, and PCA to Monitor Real-Time Malware Threats using System Call Sequences and Virtual Machine Introspection", Proc of **Springer** 2nd International Conference on Communication, Computing and Electronics Systems (ICCCES 2020), PPG Institute of Technology, Coimbatore, India, October 2020. **(Indexed by SCOPUS)**
2. Sridhara Murthy and **Suresh K. Peddoju**, "IoT based Patient Health Monitoring: A Comprehensive Survey", **Springer** 5th International Conference on ICT for Sustainable Development (ICT4SD 2020), Goa, India, July 2020. **(Indexed by SCOPUS)**
3. **Suresh K. Peddoju**, Jayesh Soni, Nagarajan Prabakar and Himanshu Upadhyay, "Natural Language Processing based Anomalous System Call Sequences Detection with Virtual Memory Introspection", International Journal of Advanced Computer Science and Applications(IJACSA), May, 2020. **(Indexed by SCI, SCOPUS)**.
4. **Suresh K. Peddoju**, Himanshu Upadhyay and Leonel Lagos, "File Integrity Monitoring: Issues, Challenges and Solutions", Concurrency and Computation: Practice and Experience, May, 2020. **(Indexed by SCI, SCOPUS)**.
5. **Suresh K. Peddoju**, Himanshu Upadhyay and Shekar Bansali, "Health Monitoring with Low Power IoT Devices using Anomaly Detection Algorithm", Proc of **IEEE conference FMEC-2019**, Rome, Italy, June, 2019.
6. **P. Suresh Kumar** and S. Ramachandram, "Fuzzy based Integration of Security and Trust in Distributed Computing", Proc of **Springer** 7th International Conference Soft Computing for Problem Solving (SocProS'2017), Indian Institute of Technology, Bhubaneswar, December, 2017. **(Indexed by SCOPUS)**
7. **P. Suresh Kumar** and Pranavi S, "Performance Analysis of Machine Learning Algorithms on Diabetes Dataset using Big Data Analytics", Proc of **IEEE** 2017 International Conference on Infocom Technologies and Unmanned Systems (ICTUS'2017), Dubai, United Arab Emirates(UAE), December 2017. pp 580-585.
8. **P. Suresh Kumar** and Umatejaswi, "Diagnosing Diabetes using Data MiningTechniques", International Journal of Scientific and Research Publications, Vol 7(6), 2016. pp 705-709.
9. A. Rishika Reddy and **P. Suresh Kumar**, "Predictive Big Data Analytics in Healthcare," Proc of **IEEE** 2016 Second International Conference on Computational Intelligence & Communication Technology (CICT), Ghaziabad, 2016, pp. 623-626.

10. J. Sindhu Sri, N. V. S. Sravani and **P. Suresh Kumar**, "Smart traveler guide: A model for guiding traveler with image matching algorithm," Proc of **IEEE** 2016 International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET), Chennai, 2016, pp. 725-728.
11. Vishwaja Thalakoti, **P. Suresh Kumar**. "A Novel Approach for Secured Image Transformation in Big Data", International Journal of Scientific Engineering and Technology Research, September, 2015, Vol 4 No. 38.
12. **P. Suresh Kumar**, S. Ramachandram. "A Study on Impact of Untrustworthy and older recommendations over T-Grid Computational Model", **Springer** International Journal of Systems Assurance Engineering and Management, December, 2014, *Available Online. (Indexed by SCI, DBLP, SCOPUS)*
13. Mohd Wajahatullah Naveed, **P. Suresh Kumar**. "A Novel Approach to Earth quake detection by using Twitter Analysis", International Journal of Computer Science Information and Engg., Tech, September, 2014, Vol 3 No. 4, pp 1-8.
14. **P. Suresh Kumar**, P. Sateesh Kumar, S. Ramachandram. "Purging of Untrustworthy Recommendations from a Grid", International Journal of Next-Generation Networks (IJNGN), December 2011, Vol 3 No.4, pp 33-41. *(Indexed by DBLP)*
15. **P. Suresh Kumar**, P. Sateesh Kumar, S. Ramachandram. "Recent Trust models in Grid", International Journal of Theoretical and Applied Information Technology (JATIT), April 2011, Vol 26 No.1, pp 64-68. *(Indexed by SCI, SCOPUS)*
16. **P. Suresh Kumar**, S. Ramachandram. "User Satisfaction based Quantification of Direct Trust in T-Grid Computation Model", Proc. Of **IEEE** Int. Conf. on Computer, Communication and Control Tech. (I4CT'2014), Sep 2014, Langkawi, Kedah, Malaysia. *(Indexed by SCOPUS)*
17. **P. Suresh Kumar**, S. Ramachandram. "T-Grid: A Domain based Trusted Grid Model with Purging of Untrustworthy Recommendations", Proceedings of **IEEE** International Conference on Advanced Research in Engineering and Technology (ICARET-2013), February 2013. Guntur, India.
18. **P. Suresh Kumar**, P. Sateesh Kumar, S. Ramachandram. "T-Grid: A Domain based Trusted Grid Model with Purging of Untrustworthy Transactions", Proceedings of **FTRA** International Conference on Advanced IT, Engineering and Management (AIM-2012), February 2012. Seoul, South Korea.
19. **P. Suresh Kumar**, P. Sateesh Kumar, S. Ramachandram. "A Modified Timer based Caching Technique for Zone Routing Protocol", Proceedings of **ACM** Sponsored International Conference on Advanced Computing (ICAC-2008), February 2008. Maharastra, India.
20. B. Ravinder Reddy, **P. Suresh Kumar**, "Zone based Service Discovery in MANET", Proceedings of National Conference RESPOGRAF-2008, April 2008. Hyderabad, India.
21. **P. Suresh Kumar**, S. Ramachandram, "Timer Based Caching Strategy applied to DSR protocol in Ad-hoc Networks", Proceedings of National Conference (WAVES-2008), February 2008. Mahabubnagar, India.
22. **P. Suresh Kumar**, P. Sateesh Kumar, S. Ramachandram, "A Review of various Caching Techniques for DSR Protocol in Ad-hoc Networks", Proceedings of **AICTE** Sponsored National Conference on Advanced Data Computing, Communication and Security (ENVISION-2007), October 2007. Gujarat, India

#### **PARTICIPATION AS THE JUDGE OF RESEARCH PEERS**

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- Acted as judge for graduate presentations of Bio-Medical Engineering at Florida International University.
- Acted as judge for poster presentation section of SRISTI-2009, a paper presentation contest organized by Department of IT, Kakatiya Institute of Technology & Science, Warangal.
- Acted as judge for poster presentation section of INFINITY-2007, a paper presentation contest organized by Osmania University, Hyderabad.
- Acted as judge for many events related to paper presentations, quizzes etc.

## **MEDIA REPORTS**

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- The course CNT 3143 - IoT Analytics with Cloud Services designed and taught by me was Press released in [FIU News](#). The content of the news is integration of Microsoft Azure Fundamental certification with CNT 3143 - IoT Analytics with Cloud Services course offered as part of the Artificial Intelligence & Big Data track in Electrical & Computer Engineering.

## **EXPERT LECTURES DELIVERED**

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- Lecture on “IoT Edge Analytics Framework for Real-time Monitoring” in “2nd One-week International Faculty Development Programme on Recent Advances in Computer Science and Allied Domains”, 24<sup>th</sup> November 2020 at Sharda University, Noida, India.
- Lecture on “Blockchain Technology in IoT” in “ATAL sponsored FDP on IoT”, held from 5-9, October 2020 at Indian Institute of Information Technology (IIIT), Pune, India.
- Lecture on “Real-time Health Monitoring system with Internet of Things (IoT)” in Research Showcase-2019, 3<sup>rd</sup> April, 2019 at Florida International University, USA.
- Lecture on “IoT Edge: Insights” in Lunch and Learn session, 24<sup>th</sup> July, 2018 at Florida International University, USA.
- Lecture on “Cloud Insights” in 3-day National Workshop on “Parallel and Distributed Computing” on 19th January, 2016 at MVSR Engineering College, Hyderabad.
- Lecture on “Web Services – Characteristics, Benefits and Challenges” in One week National Workshop on “Web Services and Internet of Things” on 1st December 2015 at G. Narayanamma Institute of Technology & Science (GNITS), Hyderabad.
- Lecture on “Big Data Analytics in Healthcare Domain” in National workshop on “Research Insights in Cloud and Big Data” on 20th September 2015 at KITS, Warangal.
- Lecture on “Servlets and JSP” in National workshop on “Advanced web programming” on 2nd March 2013 at KITS, Warangal.
- Lectures on “IBM DB2 Training programme” during 28th Sep 2010-12th Oct 2010 at KITS, Warangal.
- Lecture on “Fundamentals of computers” on 24th October 2008 at Department of ECE, University College of Engg., Osmania University, Hyderabad.
- Lecture on “Advances in Java” on 18th September, 2008 at Raja Bahadur Venkat Rama Reddy (R.B.V.R.R) Women’s college, Narayanaguda, Hyderabad.

## **PROGRAMS ORGANIZED**

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- Coordinator , National Level Faculty Development Programme on “Database programming with PL/SQL”, for faculty, 18-22 July 2016, Department of CSE, Kakatiya Institute of Technology and Science(KITS), Warangal, Telangana, India. (Number of participants: 35).
- Coordinator, National Level Faculty Development Programme on “Research Insights in Cloud and Big Data”, for faculty, 19-20 September 2015, Department of CSE, Kakatiya Institute of Technology and Science (KITS), Warangal, Telangana, India. (Number of participants: 100).
- Coordinator, Microsoft certifications programme Workshop on “Microsoft Technology Associate”, for students, 19-20 Feb 2015, Department of CSE, KITS, Warangal. (Number of participants: 120)
- Coordinator , National Workshop on “Middleware Technologies”, for faculty, 19-21 March 2009, Department of CSE, University College of Engineering, Osmania University, Hyderabad. (Number of participants: 50).
- Coordinator, National Workshop on “Mobile Computing”, for faculty, 5-7 June 2008, Department of CSE, UCE(A), Osmania University, Hyderabad. (Number of participants: 50)

## PROGRAMS ATTENDED

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- Two day Research symposium on Cyber security, University of South Florida, USA, 7th April – 9th April, 2019
- Two day conference on “Cyber Florida”, University of South Florida, USA, 10th October – 11th October, 2018
- One week oracle academy course on "Java Fundamentals and Programming", Kakatiya Institute of technology & Science, Warangal, 7th August - 11th August, 2017.
- Two weeks MeitY, Govt. of India Sponsored Faculty Development Programme on "Big Data Analytics and Internet of Things", E & ICT Academy, NIT, Warangal, 22nd May - 31st May, 2017.
- Two weeks MeitY, Govt. of India Sponsored Faculty Development Programme on "Software Engineering and Testing Methodologies", E & ICT Academy, NIT, Warangal, 5th May - 14th May, 2017.
- One week oracle academy course on "Database Programming with PL/SQL", Kakatiya Institute of technology & Science, Warangal, 18th July - 22nd July, 2016.
- Two day Faculty Development Program on “Big Data Analytics using Hadoop and R-Tools”, KITS Warangal during 8th - 9th July 2016.
- One day Faculty Development Program on “IBM Bluemix”, Sree Chaitanya Institute of Technological Sciences, Karminagar, 10th September 2015.
- One day Faculty Development Program on “Design Patterns”, KITS Warangal on 5th August, 2015.
- Two weeks ISTE Short Term Training Programme on “Introduction to Design of Algorithms”, Department of CSE, Indian Institute of Technology (IIT) Kharagpur conducted at BITS, Narsampet, April, 27-30 May, 2015.
- Two day workshop on “Effective Functioning of an Autonomous Institution”, Educational Technology Center, Kakatiya Institute of Technology & Science (KITS), Warangal, 17-18 January, 2015.
- One day ISTE sponsored seminar on “Responsibility of Youth in Implementing Technology for Better Society”, ISTE KITS chapter, KITS, Warangal, 13th December, 2014.
- One day seminar on “Teacher’s Role in an Autonomous Institution”, Educational Technology Center, KITS, Warangal, 29th November, 2014.
- Two day workshop on “Beneficial Applications of Ionizing Radiation”, R&D Cell, KITS, Warangal, 8-9 February, 2014.
- One week QIP-Short Term Course on “Developments & Challenges in Cloud Computing”, Department of Computer Science and Engineering, Indian Institute of Technology (IIT) Roorkee, 10-14, June, 2013.
- One week IFIP WG 11.11 International Winter School on “Trust Management in ICT”, National Institute of Technology, Surat, India, 6th – 10th Feb 2012
- Two days National level Program on Technology Enhanced Learning workshop, NPTEL, Indian Institute of Technology, Madras, 31st Aug-01st Sept, 2012.
- Two days National Workshop on “Cloud Computing”, NITTTR, Chennai, 8th – 9th Dec, 2011
- Two weeks AICTE sponsored SDP on “Upgradation of Teaching and Presentation Skills”, Kakatiya Institute of Technology & Science, Warangal, 30th Aug-12th Sep, 2010
- Two day workshop on “Soft Computing”, Department of CSE, University College of Engineering, Osmania University, 30-31 March 2009
- One day workshop “SPARK-2009”, Infosys, Hyderabad, 22nd February 2009.
- One day workshop “Network security”, Delloite, Hyderabad, 8th February 2009.
- Two day National level workshop on “Design Patterns”, Balaji Institute of Technology and Sciences, Warangal, 27 November 2008 to 29 November 2008.
- One week workshop on “RIA & Middleware Technologies”, Adobe Systems India Pvt. Ltd., Hyderabad, 21 July 2008 to 26 July 2008.
- Two day National level workshop on “Data Mining”, Department of CSE, University College of Engineering, Osmania University, 15-16 May 2008.
- One week Workshop “Mission 10 X”, Wipro Technologies, India, 10-15 March 2008
- One week Faculty Development program on “Advanced Java Programming”, AMS School of Informatics, 10-14 Dec 2007.

- One week Training program on “Using Rational Suite for Product Development”, IBM Certified, 20-25 November 2006
- One week Short Term Training program on “OOAD & UML”, Department of CSE&IT, Kamala Institute of Technology & Science, Huzurabad, 18-22 July, 2005.
- Pre-conference Tutorial of National conference on Networks and Distributed systems (NETWORKS-2005), Department of CSE, Osmania University, Hyderabad, 25-26 February, 2005.

## **TECHNICAL CONTRIBUTIONS**

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- Designed, Developed & Maintaining the Online Question Paper Distribution system Website of Examination Section, Osmania University, Hyderabad, India since 2012.
- Member, Confidential Team of State level eligibility test for selection of Police Constable Positions of Telangana State, India.
- Member, Confidential Team of State level eligibility test for entering into engineering and medical streams (EAMCET) ie., EAMCET-2016, EAMCET-2015, EAMCET-2014, EAMCET-2013, EAMCET-2012, EAMCET-2011 and EAMCET-2010.
- Member, Confidential Team of other State level eligibility tests and results processing like VRO/VRA and MCET-2015.
- Member, Admissions of MSIT programme in collaboration with CMU, USA in 2008.
- Designed, Developed and Maintained the University College of Engineering (A), Osmania University, Hyderabad Web site during 2007-2009.
- Member, Committee for preparing Institutional Development Proposal (IDP) under Technical Education Quality Improvement Program (TEQIP)-II, at KITS, Warangal in 2011.
- Department Coordinator, TEQIP, at University College of Engg., (A), Osmania University, Hyderabad, during 2008-2009.
- Designed, Developed & Maintained the Web site for Integrated Common Entrance Test (ICET)-2007 Examination organized by Osmania University, Hyderabad.

## **PROFESSIONAL RESPONSIBILITIES**

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- Member, Research showcases Committee, since 2019.
- Member, Research Development Committee, since 2018.
- Faculty-in-charge, Institute Data Centre (IDC) during 2016-2018.
- Member, Department PG project review committee member since 2013.
- Member, Department UG project review committee during 2013-2015.
- Coordinator (Department), T&P activity during 2013-2015.
- Coordinator (Department), JKC activity during 2013-2015.
- In-Charge, GUI Laboratory during 2011-2012.
- In-charge (Department), Co-Cultural Activity during 2010-2011.
- In-charge (Department), Time-Tables during 2009-2011.
- Member, “College Management Software” committee in KITS, Warangal.
- Member, WEB TEAM for KITS web site during 2011-2012.
- Convener, WEB TEAM for KITS web site during 2010-2011.
- Coordinator (Department), JKC activity during 2010-2011.
- Member, committee constituted to prepare required proposals in connection with affiliation and other related approvals of AICTE, NBA and Kakatiya University, Warangal since 2010.
- Convener, committee for Institute Rankings like NIRF-17, NIRF-16, All India Times i3RC Engineering Institutes Ranking Survey-2016, Career360 Engineering Ranking/Rating 2016etc.,

**TECHNICAL BODY MEMBERSHIP/ASSOCIATIONS**

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<b>Sl. No</b>	<b>Name of the Society</b>	<b>Membership Period</b>	<b>Membership Number</b>
1	Institute of Electrical and Electronics Engineers (IEEE)	Yearly	92801560
2	Computer Society of India ( CSI )	Life	00173601
3	Institution of Electronics & Telecommunications Engineering (IETE)	Life	M-208229
4	Indian Society for Technical Education ( ISTE )	Life	LM-58582
5	International Association of Engineers (IAENG)	Life	116925
6	Universal Association Computer and Electronics Engineers (UACEE)	3 years	SM 1002503

**Suresh Kumar Peddoju**