



Dr. K. Shahu Chatrapati

Professor & Addl. Controller of Examinations (On deputation at JNTUH-Hyderabad)

Life Member of CSI, ISTE

Computer Science & Engineering

Areas of Interest:

Machine Learning, Grid Computing, Ad-hoc & Wireless Sensor Networks, Data Warehousing & Mining, Big Data, Computer Networks, Software Engineering, Compilers, Theory of Automata, Distributed and Cloud Computing.

Name : Dr.K.Shahu Chatrapati
Designation : Professor
Qualification : Ph.DÂ (CSE)
No. of Years of Experience : 21yrs
Organization : JNTUH UCEJ / JNTUH Hyderabad,TS,INDIA.
Department : Computer Science and Engineering.

-> Educational & Professional

-> Academic Qualifications

-> Ph.D in Computer Science and Engineering, Acharya Nagarjuna University (2005-2011)

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M.Tech. in Computer Science and Engineering, University College of Engineering, Andhra University with First class (2000-2002)

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B.Tech. in Computer Science Engineering, Acharya Nagarjuna University with First class (1995-1999)

▶ Professional Experience

-> Teaching Experience

-> Assistant Professor, Indur Institute of Engineering College (2003-01-03 - 2006-11-14)

-> At JNTUH

-> Professor, JNTUH UCEH /JNTU ,HYDERABAD (2022 - Till Date)

-> Professor, JNTUH UCEM /JNTU ,HYDERABAD (2019 - 2021)

-> Associate Professor, JNTUH UCEM /JNTU ,HYDERABAD (2016 - 2019)

-> Assistant Professor, JNTUH UCEM /JNTU ,HYDERABAD (2010 - 2016)

-> Assistant Professor, JNTUH UCEJ /JNTU ,HYDERABAD (2009 - 2010)

-> Assistant Professor, UCEK /JNTU ,KAKINADA (2006 - 2009)

-> Publications

- **International Journals**

- > Dr. K. Shahu Chatrapati , Chiranjeevi Kunamalla, *Network Path Optimization Strategy using Collaborative Cache for Delay Tolerant Networks*, Journal of Scientific and Industrial Research (JSIR), ISBN No.0975-1084, Vol No.82, pp.210-218, February, 2023
- > Dr. K. Shahu Chatrapati , Sagar Mekala, *A Hybrid Approach to Neighbour Discovery in Wireless Sensor Networks*, Intelligent Automation & Soft Computing, ISBN No.2326- 005X, Vol No.35, Issue No.1, pp.581-593, January, 2022
- > Dr. K. Shahu Chatrapati , Sagar Mekala, *Continuous Neighbor Discovery with Efficient Asynchronous wake-up Schedules in Wireless Sensor Networks*, Journal of Theoretical and Applied Information Technology, ISBN No.1992-8645, Vol No.99, Issue No.16, pp.4081-4089, August, 2021
- > Dr. K. Shahu Chatrapati , G. Raja Vikram, *An Energy Efficient Node Scheduling based Congestion Control Scheme for WSN Multicasting*, EAI Endorsed Transactions on Energy Web, ISBN No.2032-944X, Vol No.7, Issue No.30, pp.1-6, April, 2020
- > Dr. K. Shahu Chatrapati , Sagar Mekala, *Energy adaptive block design based neighbor discovery for asynchronous wireless sensor networks*, Indian Journal of Science and Technology -Web of Science, ISBN No.0974- 6846, Vol No.13, Issue No.26, pp.2633-2643, July, 2020
- > Dr. K. Shahu Chatrapati , Sagar Mekala, *Present State-of-the-Art of Continuous Neighbor Discovery in Asynchronous Wireless Sensor Networks*, EAI Endorsed Transactions on Energy Web, ISBN No.2032- 944X, Vol No.8, Issue No.33, pp.1-7, October, 2020
- > Dr. K. Shahu Chatrapati , Chiranjeevi Kunamalla, *An Optimal Strategy for Cluster Hop Detection For Delay Tolerant Networks*, International Journal of Advanced Science and Technology, ISBN No.2005-4238, Vol No.29, Issue No.8, pp.6483-6499, September, 2020
- > Dr. K. Shahu Chatrapati , Dr. J. Ujwala Rekha, *Competitive equilibrium based personal data market model*, Indian Journal of Science and Technology, ISBN No.0974-5645, Vol No.13, Issue No.13, pp.1450-1457, May, 2020
- > Dr. K. Shahu Chatrapati , Dr. J. Ujwala Rekha, *Probabilistic Multiple Correlation based Term Weighting Scheme for Measuring Similarity of Unstructured Text Records*, Indian Journal of Science and Technology, ISBN No.0974-5645, Vol No.13, Issue No.11, pp.1276-1282, May, 2020
- > Dr. K. Shahu Chatrapati , Sagar Mekala, *A Continuous Neighbour Discovery Protocol for Asymmetric Wireless Sensor Networks*, Journal of Advanced Research in Dynamical and Control Systems, ISBN No.1943-023X, Vol No.12, Issue No.07, pp.633-645, 2020
- > Dr. K. Shahu Chatrapati , G. Raja Vikram, *A Secured and Scalable Battle-Field Surveillance using WSN Multicasting*, International Journal of Engineering and Advanced Technology , ISBN No.2249-8958, Vol No.9, Issue No.2, pp.2445-2449, December, 2019
- > Dr. K. Shahu Chatrapati , Vijayakumar Polepally, *Dragonfly optimization and constraint measure-based load balancing in cloud computing*, Cluster Computing, ISBN No.1386-7857, Vol No.22, Issue No.1, pp.1099-1111, January, 2019
- > Dr. K. Shahu Chatrapati , Vijayakumar Polepally, *DEGSA-VMM: Dragonfly-based exponential gravitational search algorithm to VMM strategy for load balancing in cloud computing*, The international journal of cybernetics, systems and management sciences(Kybernetes), ISBN No.0368-492X, Vol No.47, Issue No.6, pp.1138-1157, February, 2018
- > Dr. K. Shahu Chatrapati , Kakelli Anil Kumar, *New secure routing protocol with elliptic curve cryptography for military heterogeneous wireless sensor networks*, Journal of Information and Optimization Sciences , ISBN No.2169-0103, Vol No.38, Issue No.2, pp.341-365, April, 2017
- > Dr. K. Shahu Chatrapati , Vijayakumar Polepally, *Multiple Objective-Based Modified Exponential Gravitational Search Algorithm to VMM Strategy for Load Balancing in Cloud*, International Journal of Intelligent Engineering and Systems , ISBN No.2185-3118, Vol No.10, Issue No.5, pp.67-76, October, 2017
- > Dr. K. Shahu Chatrapati , Vijayakumar Polepally, *Exponential gravitational search algorithm-based VM migration strategy for load balancing in cloud computing*, International Journal of Modeling, Simulation, and Scientific Computing, ISBN No.1793- 9623, Vol No.9, Issue No.1, June, 2017
- > Dr. K. Shahu Chatrapati , Kakelli Anil Kumar, *Energy Efficient Clustering Multipath Routing Protocol (EECMRP) with Strategic Route Discovery for Heterogeneous Wireless Sensor Network*, International Journal of Computer Science and Information Security, ISBN No.1947-5500 , Vol No.14, Issue No.07, pp.397-402, July, 2016
- > Dr. K. Shahu Chatrapati , Kakelli Anil Kumar, *A Node Deployment Mechanism for Energy- Efficient Routing in Heterogeneous Wireless Sensor Network*, Journal of Theoretical and Applied Information Technology, ISBN No.1992-8645 , Vol No.93, Issue No.1, pp.17-23, November, 2016
- > Dr. K. Shahu Chatrapati , Kakelli Anil Kumar, *Interference Minimization Protocol in Heterogeneous Wireless Sensor Network for High Quality Data Transmission*, International Journal of Engineering Research and Applications, ISBN No.2248-9622, Vol No.5, Issue No.12, pp.34-38, December, 2015
- > Dr. K. Shahu Chatrapati , Dr. J. Ujwala Rekha, *Competitive Equilibrium Approach for Load Balancing a Data Grid*, International Journal of Computer Science Issues, ISBN No.1694-0814, Vol No.8, Issue No.2-427, 437, March, 2011
- > Dr. K. Shahu Chatrapati , Dr. J. Ujwala Rekha, *Competitive equilibrium approach for load balancing a computational grid with communication delays*, Journal of Theoretical and Applied Information Technology, Vol No.19, Issue No.2, pp.126-133, 2010

International Conference

- ▶ Dr. K. Shahu Chatrapati , Chiranjeevi Kunamalla, *A Conclusive Comparative Analysis on Congestion Control in DTN Routing Protocols*, Computer Integrated Manufacturing Systems, ISBN No.1006-5911, Vol No.28, Issue No.12, pp.894-921, December, 2022
- ▶ Dr. K. Shahu Chatrapati , Sagar Mekala, *Energy Efficient Neighbor discovery using bacterial foraging optimization algorithm for directional WSNs*, Machine Learning, Deep Learning and Computational Intelligence for Wireless Communication, ISBN No.LNEE, 978-981-16-0289-4_7, Vol No.749, pp.93-107, February, 2021
- ▶ Dr. K. Shahu Chatrapati , Chiranjeevi Kunamalla, *Probabilistic Optimal Path Routing Strategy for Delay Tolerant Networks*, Design Engineering, ISBN No.0011-9342, Issue No.7, pp.16165-16184, July, 2021
- ▶ Dr. K. Shahu Chatrapati , G. Raja Vikram, *ECC-Based Secure Group Communication in Energy-Efficient Unequal Clustered WSN (EEUC-ECC)*, Third International Conference on Computational Intelligence and Informatics, ISBN No.978-981-15-1480-7, Vol No.1090, pp.673-682, March, 2020
- ▶ Dr. K. Shahu Chatrapati , Sagar Mekala, *Neighbor Nodes discovery schemes in a Wireless Sensor Network: A Comparative Performance Study*, Taylor and Francis Group, RACEE-2016, ISBN No.978-135-1136822, Vol No.1, Issue No.1, pp.1-12, 2019
- ▶ Dr. K. Shahu Chatrapati , Vijayakumar Polepally, *Energy Aware GSA-Based Load Balancing Method in Cloud Computing Environment*, Advances in Machine Learning and Data Science, ISBN No.978-981-10-8568-0, Vol No.705, pp.283-292, May, 2018
- ▶ Dr. K. Shahu Chatrapati , G. Raja Vikram, *Variable initial energy and unequal clustering (VEUC) based multicasting in WSN*, International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET), ISBN No.978-1-5090-4443-6, February, 2018
- ▶ Dr. K. Shahu Chatrapati , Kakelli Anil Kumar, *Interference Minimization Protocol in Heterogeneous Wireless Sensor Networks for Military Applications*, Proceedings of First International Conference on Information and Communication Technology for Intelligent Systems, ISBN No.978-93-86138-76-7, Vol No.2, pp.479-487, January, 2016
- ▶ Dr. K. Shahu Chatrapati , Kakelli Anil Kumar, *Congestion Control in Heterogeneous Wireless Sensor Networks for High-Quality Data Transmission*, Proceedings of the International Congress on Information and Communication Technology , ISBN No. Advances in Intelligent Systems and Computing, Vol No.439, pp.429-437, June, 2016
- ▶ Dr. K. Shahu Chatrapati , Dr. J. Ujwala Rekha, *A Study on Speech Processing*, International Conference on Information Systems Design and Intelligent Applications, ISBN No.978-81-322-2757-1, pp.209-226, February, 2016
- ▶ Dr. K. Shahu Chatrapati , Dr. J. Ujwala Rekha, *Game Theory and Its Applications in Machine Learning*, Information Systems Design and Intelligent Applications, ISBN No.978-81-322-2757-1, pp.195-207, January, 2016
- ▶ Dr. K. Shahu Chatrapati , Dr. J. Ujwala Rekha, *Feature selection using game theory for phoneme based speech recognition*, 2014 International Conference on Contemporary Computing and Informatics, ISBN No.978-1-4799-6629-5, pp.962-966, January, 2015
- ▶ Dr. K. Shahu Chatrapati , Dr. J. Ujwala Rekha, *Feature selection for phoneme recognition using a cooperative game theory based framework*, International Conference on Multimedia, Communication and Computing Application (MCCA 2014), ISBN No.978-1-138-02775-6, pp.191-195, May, 2015
- ▶ Dr. K. Shahu Chatrapati , Dr. J. Ujwala Rekha, *Game theoretic approach for automatic speech segmentation and recognition*, 2014 IEEE 28th Convention of Electrical & Electronics Engineers in Israel (IEEEI), ISBN No.978-1-4799-5988-4, pp.1-5, IEEE, December, 2014
- ▶ Dr. K. Shahu Chatrapati , Dr. J. Ujwala Rekha, *Recursive Competitive Equilibrium Approach for Dynamic Load Balancing a Distributed System*, Distributed Computing and Internet Technology, ISBN No.978-3-642-19056-8_11, Vol No.LNCS 6536, pp.162-174, Springer-Verlag Berlin Heidelberg, 2011
- ▶ Dr. K. Shahu Chatrapati , Dr. J. Ujwala Rekha, *A Study on Load Balancing in Grid Networks*, Joint International Conference on Swarm, Evolutionary & Memetic Computing (SEMCCO) and Fuzzy & Neural Computing Conference (FANCCO), pp.78-81, December, 2011
- ▶ Dr. K. Shahu Chatrapati , Dr. J. Ujwala Rekha, *Competitive Equilibrium Theory and Its Applications in Computer Science*, International Conference on High Performance Architecture and Grid Computing, ISBN No.978-3-642-22577-2_7, Vol No.CCIS 169, pp.539-547, 2011
- ▶ Dr. K. Shahu Chatrapati , Dr. J. Ujwala Rekha, *Competitive Equilibrium Approach for Load Balancing in Computational Grids*, International Conference on Advances and Emerging Trends in Computing Technologies, pp.63-68, June, 2010

-> Events Participated/Organized

- Organized

-> Organized a Conference on A National Level Conference on "Advances in Computing and Networking", Department of Computer Science and Engineering, JNTUH University College of Engineering Manthani, Telangana, 06-12-2013 to 07-12-2013

- Co-ordinated

-> Coordinated for a Refresher Course on *UGC sponsored Two-Week Online Refresher Course on "Artificial Intelligence"*, At UGC-Human Resource Development Centre, JNTUH, Kukatpally, Hyderabad, 09-11-2020 to 23-11-2020

-> Coordinated for a Refresher Course on *UGC sponsored One-Week Online Short Time Course on "Deep Learning"*, At UGC-Human Resource Development Centre, JNTUH, Kukatpally, Hyderabad, 14-09-2020 to 19-09-2020

-> Coordinated for a Workshop on *TEQIP-3 Sponsored 2-Day Workshop on "Outcome Based Education and Research Methods for Engineering Faculty"*, JNTUH University College of Engineering Manthani, Telangana, 28-02-2020 to 29-02-2020

-> Coordinated for a Workshop on *2-Day State Level Student Hackathon "Hack-Elite" on "AI for Sustainability"*, JNTUH University College of Engineering Manthani, on behalf of J-Hub, JNTU Hyderabad, 24-01-2020 to 25-01-2020

-> Coordinated for a Workshop on *a 2-Day National Level Technical Workshop on "Internet of Things"*, Department of Computer Science and Engineering, JNTUH University College of Engineering Manthani, Telangana, 22-01-2020 to 23-01-2020

-> Coordinated for a Workshop on *1-Day State Level Boot Camp on "Artificial Intelligence for better Future on IBM Watson"*, JNTUH University College of Engineering Manthani, on behalf of J-Hub, JNTU Hyderabad, 21-01-2020 to

-> Coordinated for a Workshop on *a 3-Day National Level Technical Workshop on "Machine Learning"*, Department of Computer Science and Engineering, JNTUH University College of Engineering Manthani, Telangana, 16-12-2019 to 18-12-2019

-> Coordinated for a Refresher Course on *UGC sponsored Two-Week Refresher Course on "Artificial Intelligence and Machine Learning"*, At UGC-Human Resource Development Centre, JNTUH, Kukatpally, Hyderabad, 14-10-2019 to 26-10-2019

-> Coordinated for a Workshop on *a 2-Day National Level Technical Workshop on "Ethical Hacking"*, Department of Computer Science and Engineering, JNTUH University College of Engineering Manthani, Telangana, 01-04-2019 to 02-04-2019

-> Coordinated for a Workshop on *2-Day State Level Student Hackathon "Hack-Elite" on "Agri-Tech and Water Conservation"*, JNTUH University College of Engineering Manthani, on behalf of J-Hub, JNTU Hyderabad, 09-01-2019 to 10-01-2019

-> Coordinated for a Workshop on *2-Day State Level Boot Camp on "Artificial Intelligence"*, JNTUH University College of Engineering Manthani, on behalf of J-Hub, JNTU Hyderabad, 07-01-2019 to 08-01-2019

-> Coordinated for a Workshop on *a 3-Day National Level Technical Workshop on "IoT & Big Data"*, Department of Computer Science and Engineering, JNTUH University College of Engineering Manthani, Telangana, 21-03-2018 to 23-03-2018

-> Coordinated for a Refresher Course on *UGC sponsored Three-Week Refresher Course on "Internet of Things"*, At UGC-Human Resource Development Centre, JNTUH, Kukatpally, Hyderabad, 09-10-2017 to 30-10-2017

-> Coordinated for a Workshop on *a 3-Day National Level Technical Workshop on "Big Data Analytics"*, Department of Computer Science and Engineering, JNTUH University College of Engineering Manthani, Telangana, 23-09-2016 to 25-09-2016

-> Coordinated for a Workshop on *a 3-Day National Level Technical Workshop on "Big Data Analytics"*, Department of Computer Science and Engineering, JNTUH College of Engineering Manthani, Telangana, 23-01-2016 to 25-01-2016

-> Coordinated for a Workshop on *a 3-Day National Level Technical Workshop on "Android Application Development"*, Department of Computer Science and Engineering, JNTUH College of Engineering Manthani, Telangana, 07-10-2015 to 09-10-2015

-> Coordinated for a Workshop on *2-Day National Level Technical Workshop on "Cyber Security and Malware Analysis"*, Department of Computer Science and Engineering, JNTUH College of Engineering Manthani, Telangana, 14-03-2014 to 15-03-2014

-> Honors & Professional Activities

-> Professional Activities

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1. **Life Member**, Computer Society of India.
2. **Life Member**, Indian Society for Technical Education.

-> **Teaching**

- > Soft Computing in B.TECH(CSE) I Semester (2022-2023)
- > Software Quality Engineering in MCA I Semester (2023-2024)
- > PROGRAMMING FOR PROBLEM SOLVING in B.TECH(CSE) II Semester (2022-2023)
- > SECURITY IN 5G TECHNOLOGY in M.Tech (CSE) I Semester (2022-2023)
- > COMPILER DESIGN in B.TECH(CSE) II Semester (2022-2023)
- > CLOUD APPLICATIONS in MCA I Semester (2022-2023)
- > MACHINE LEARNING in MCA II Semester (2021-2022)

-> **Administrative Positions Held**

- > Additional Controller of Examinations, JNTUH HYDERABAD, 17 Mar 2022 - Present
- > HEAD, Department of CSE, JNTUH UCEM /JNTUH ,HYDERABAD, 06 Aug 2012 - 16 Mar 2022
- > NSS Program Officer, JNTUH UCEM /JNTUH ,HYDERABAD, 20 Jan 2012 - 14 Mar 2020
- > Deputy Warden for Boys Hostel, JNTUH UCEM /JNTUH ,HYDERABAD, 26 Aug 2011 - 05 Apr 2017
- > Transport In-charge of the College, JNTUH UCEM /JNTUH ,HYDERABAD, 03 Jan 2013 - 05 Aug 2015
- > NSS Program Officer, JNTUH UCEJ /JNTUH ,HYDERABAD, 05 Aug 2010 - 29 Dec 2010
- > Deputy Warden for Boys Hostel, JNTUH UCEJ /JNTUH ,HYDERABAD, 09 Mar 2009 - 04 Aug 2010

-> **Project/Research Guidance**

- **Students**

| Student Name | Title | Year | Download |
|-----------------------|--|------|----------|
| K. CHIRANJEEVI | Congestion Control in Social Based Delay Tolerant Networks Using Cost Optimisation and Collaborative Cache Routing Mechanism | 2023 | |
| A. MAHENDER | Management of Cloud Based Resources on Virtual Machines and Networks for Application and Data | 2023 | |
| SAGAR MEKALA | Energy Efficient Neighbour Node Detection Algorithms for Wireless Sensor Networks | 2022 | |
| G. RAJAVIKRAM | DESIGN AND IMPLEMENTATION OF SECURED KEY DISTRIBUTION AND CONGESTION FREE PROTOCOL FOR MULTICAST COMMUNICATION | 2021 | |
| VIJAYAKUMAR POLEPALLY | NATURE INSPIRED META-HEURISTIC BASED IMPROVED LOAD BALANCING TECHNIQUES FOR CLOUD | 2020 | |
| KAKELLI ANIL KUMAR | IMCC SECURITY MECHANISM IN HETEROGENEOUS WIRELESS SENSOR NETWORKS FOR HIGH QUALITY DATA TRANSMISSION | 2017 | |

-> **Countries/Foreign Universities**

- > IEEE 28th Convention of Electrical and Electronics Engineers in Israel, Israel.
- > The Kulliyyah of Engineering, IIUM, Kuala Lumpur, Malaysia.

Contact :

Dr. K. Shahu Chatrapati

Computer Science & Engineering

Official Email: shahujntu@jntuh.ac.in

Alternate Email: shahujntu@gmail.com

Phone: 9866301501