

Dr. SONAM SETH

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AREA of RESEARCH

Cloud Computing

PhD Thesis Title:

Virtual Resource Utilization Models for Cloud Computing Systems

Ongoing Project(s):

- **Working as CO-PI in a Project approved by U.P. Govt.**

EDUCATION

- Ph.D. in Computer Science, August 2021 – Kanya Gurukul Campus, Dehradun, second campus of GURUKUL KANGRI VISHWAVIDYALAYA (Deemed University), Haridwar, U.K., India.
- MCA, June 2010 – BBDNITM affiliated to GAUTAM BUDDHA TECHNICAL UNIVERSITY, Lucknow, U.P., India.
- B.Sc. (IT), June 2007 – BUNDELKHAND UNIVERSITY, Jhansi, U.P., India.

PROFESSIONAL EXPERIENCE

- At present working in Department of Mathematical Sciences & Computer Applications at Bundelkhand University, Jhansi as an Assistant Professor (SFS), August 2017 - till date.
- Worked in Shri Rawatpura Sarkar Institutions, Datia Affiliated to Jiwaji University, Gwalior (MP) as a Lecturer, March 2011 - November 2011.

RESEARCH / FIELD WORK EXPERIENCE

Publications

- Seth, S., & Singh, N. (2017, May). Dynamic threshold-based dynamic resource allocation using multiple VM migration for cloud computing systems. In *International conference on information, communication and computing technology* (pp. 106-116). Springer, Singapore.
- Seth, S., & Singh, N. (2017). Cloud Computing: A Perspective on Next Basic Utility in IT World. *International Research Journal of Engineering & Technology (IRJET)*, 4(7), 96-100.
- Seth, S., & Singh, N. (2018). Workflow Scheduling Approach Based on Makespan in Cloud Computing. *Vivechan International Journal of Research*, 9(2), 13-18.

- Seth, S., & Singh, N. (2019). Dynamic heterogeneous shortest job first (DHSJF): a task scheduling approach for heterogeneous cloud computing systems. *International Journal of Information Technology*, 11(4), 653-657.
- Seth, S., & Singh, N. (2020). Multi-QoS Enhanced Heuristic Model for Scheduling of Scientific Workflows. *International Journal of Scientific & Technology Research (IJSTR)*, Elsevier, 9(3), 6665-667.
- Sonam Seth and Avanish Kumar (2017). क्लाउड कम्प्यूटिंग : आई टी वर्ल्ड में एक अग्रिम प्रौद्योगिकी, *Vigyan Garima Sindhu*.
- Sonam Seth and Avanish Kumar (2018). क्लाउड कम्प्यूटिंग में कार्यप्रवाह प्रबंधन : कार्यप्रवाह निर्धारण दृष्टिकोण, *Vigyan Garima Sindhu*.

Conferences

- Paper "COVID-19Fog: The Expert Diagnostic Testing System", presented in 23rd Annual Conference of Vijnana Parishad of India on "Recent Developments in Mathematics, Optimization, and Computational Sciences (RDMOCS-2021)", September 06-10, 2021, organized by Bundelkhand University, Jhansi, India. (Virtual Mode)
- Sonam Seth, Nipur Singh, and Avanish Kumar, "Performance Analysis of Workflow Applications in Cloud Computing Environment", presented at IndiaCom-2018;12th INDIACOM; 2018 5th International Conference on Computing for Sustainable Global Development, IEEE Conference, 14-16 March, 2018 at BVICAM, New Delhi.
- Sonam Seth, Nipur Singh, and Avanish Kumar, "Hybrid Meta-Heuristic Technique Based Dynamic Resource Allocation in Heterogeneous Cloud Computing Environment", presented at RCTMSIT-2018, 9-11 March, 2018 at Bundelkhand University, Jhansi.
- Sonam Seth, Nipur Singh, "Dynamic Threshold-based Dynamic Resource Allocation using Multiple VM Migration for Cloud Computing Systems", presented at International Conference on Information, Communication & Computing Technology (ICICCT-2017) in collaboration with Springer CCIS and CSI on 13, May, 2017 at JIMS, New Delhi, India.
- Sonam Seth, Nipur Singh, and Avanish Kumar, "Cloud Computing: An Advance Technology in IT World", presented at National Conference on Recent Trends and Technologies in Data Science and Artificial Intelligence (NCTDA-2016), 26-27, August, 2016, Bhabarwah Campus, University of Jammu, Bhabarwah, Jammu, India.
- National conference attended at GKV, Haridwar, India.

Seminar/Workshop/Webinar

- Worked as Organizing Secretary for Workshop on "Research Methodology and Soft Skills", March 25-31, 2022 organized by Bundelkhand University, Jhansi.
- Attended the training on "AZ 900: Microsoft Azure Fundamentals", February 17-19, 2022

organized by Koenig Solutions.

- Worked as Organizing Secretary for Pre-Conference Workshop on “Vedic Mathematics”, September 04-05, 2021 and 23rd Annual Conference of Vijnana Parishad of India on "Recent Developments in Mathematics, Optimization, and Computational Sciences (RDMOCS-2021)", September 06-10, 2021, organized by Bundelkhand University, Jhansi, India. (Virtual Mode)
- Worked as organizing committee member for “Seven days Refresher Course on National Education Policy-2020” (online mode) organized by Bundelkhand University, Jhansi, 17-23 March, 2021.
- Attended “2nd IEEE Winter School on Fog/Edge Computing 2020”, Virtual School organized by IIT, Kanpur, 29-30 December, 2020.
- One day webinar “Art of research writing” by Gautam Budhha University, Greater Noida, May 29, 2020.
- Four days webinar “Role of Computing Technology in Human Lives with CORONA Virus: Challenges and Prevention” by CSTT, New Delhi, and UPES, Dehradun from May 26, 2020 to May 29, 2020.
- One day webinar “Fine Tuning Research Planning using Elsevier Tools- Science Direct Scopus & Mendeley” by Elsevier on May 16, 2020.
- One day Webinar “Blockchain Technology for New Era of Higher Education” by Gautam Budhha University, Greater Noida, on May 14, 2020.
- Five days webinar “E-Shodh Sindhu Web of Science Certification Series” by Infilbnet and Clarivate from May 14, 2020 to May 28, 2020.
- Five days workshop on “Embedded Systems Design for Internet of Things” at IIT, Kanpur, May 30 to June 3, 2018 under QIP, CDTE.
- Paper “क्लाउड कम्प्यूटिंग में कार्यप्रवाह प्रबंधन : कार्यप्रवाह निर्धारण दृष्टिकोण “ presented in three days National Seminar on “Applications of Graph & Network in Computational Studies, Bioinformatics, Engineering, and its Technical Terminology” at JNU, New Delhi 12-14 March, 2018 by CSTT, MHRD, New Delhi.
- Three days National Seminar on “गणितीय शब्दावली की महत्ता एवं तकनीकी शिक्षा में अनुप्रयोग” at SRMS CET, Bareilly, 28-30 July, 2017 by CSTT, MHRD, New Delhi, and attended as an Expert .
- One day workshop on “Scholarly Writing” by Springer Nature” on April 25, 2017 at Bundelkhand University, Jhansi.
- One day workshop on “Optimization Techniques for solving Industrial Problems (OTSIP-16)” by Mathematical Colloquium on October 15, 2016 at IIT Roorkee.
- Evening Symposium “Exploring the Potential of Cloud Services” on Aug. 06, 2015 by CSI Delhi Chapter at IIC, New Delhi.
- One week FDP at Bundelkhand University, Jhansi from Sept 01, 2014 to Sept 07, 2014.
- Two days workshop on “ANN with Matlab implementation” at BVIMR, New Delhi.
- Two Months research program, “Summer Faculty Research Fellow Program” under QIP

at IIT, Delhi from May 16, 2013 to June 30, 2013.

- One day seminar on “History of Engineering & Transportaion”, by Prof. Bruce E. Seely from Michigan University (U.S.) in Inter-Faculty Youth Festival: ‘KALRAV’ at Bundelkhand University, Jhansi.
- “Best Practices in Software Quality Engineering and 21st Century Teaching Learning System” AICTE Sponsored Two Weeks Staff Development Program (SDP) at BVICAM, New Delhi.
- One day Seminar on “Cloud Computing” at Bundelkhand University, Jhansi.
- One day Seminar on “Challenging Role of Women in 21st Century” at Bundelkhand University, Jhansi.
- Four days workshop on "Mobile Application using J2ME" at IIT, Kanpur.
- One day seminar on "Changing Role of IT in organization" at LBS Institute, Lucknow.
- One day seminar on "Issues & Challenges of Internet Security" at LBS Institute, Lucknow.

Extra Curriculum Activities

- Attended Meeting as an Expert for testing of ‘Online Admission System of Corresponding Courses in Hindi’ at Central Hindi Directorate, New Delhi.
- Member of different committee’s T raining and Placement cell, Admission cell, Examination cell, Research Cell, and IQAC at Bundelkhand University, Jhansi.
- Delivered Lecture to Ph.D. Scholars during Course-Work at Bundelkhand University, Jhansi.
- Got 2nd prize in Debate on "Dowry System" at Inter-College level for Child Genius Science Center.
- Finalist in Technical Event in Annual Fest at Inter College level:‘UTKARSH-09’.
- Core Committee member for Pre-Placement Program.
- Member of International Association of Computer Science and Information Technology (IACSIT).
- Volunteer in College Annual Fest"Utkarsh-09".
- Participated in cultural activities.

TEACHING SUBJECTS/SKILLS

Course	Subjects
MCA	Java Programming, Operation System, Software Engineering, Web Technology (HTML, CSS, JavaScript, PHP, JSP, XML)
BCA(Hon.)	Java Programming, Operation System, Software Engineering, Web Technology, PHP & MySQL, Linux and Shell Programming, Information Security and Cyber Law
BSc.(Hons.)	Java Programming

BCA(H) and BSc(H) Projects	Java Programming, Oracle, Sql Server, PHP & MySQL
Additional	C, C++, DBMS, Python(Basic), R-Programming
Cloud Computing Tools/Simulators	CloudSim3.0.0, WorkflowSim, Cloud Analyst, FogSim

PROJECTS HANDLED

1. **"Inventory Control System for e-Music World"**, IIT, Kanpur, 2007, JAVA, SQL Server.
2. **"Online Reminder System"**, e-Saffron Services, Noida, 2010, Java/J2EE, Servlet, JSP, Struts, Oracle10g, Weblogic8.0, MyEclipse6.0.

Place: Jhansi, Uttar Pradesh, India

(Dr. Sonam Seth)