AVINAB MARAHATTA

Kathmandu, Nepal

Phone: +977 9841881505, Email: avinab@cemusi.org

Website: https://avinab.com.np, Page: https://aviauraa.github.io/home/

SUMMARY

To contribute outstanding technical skills and strong commitment to achieve notable research goals, I am seeking a position that utilizes my skills and abilities in the research field that offers security and professional growth while being resourceful, innovative and flexible.

RESEARCH INTERESTS

Sustainable Computing	Artificial Intelligence
Fault Tolerance	Resource Provisioning and Allocation
Communication Network	Edge and Cloud Computing

EDUCATION

Ph.D., Computer System Architecture *July 2020*
Institute of Computing Technology, Chinese Academy of Sciences,
University of Chinese Academy of Sciences *Beijing, China*
Dissertation: Energy-Efficient Task Scheduling for Cloud Data Center based on Task and Resource Classification.

Master of Technology, Computer Science *August 2014*
Jawaharlal Nehru Technological University Hyderabad *Hyderabad, India*
Dissertation: Enhanced Intrusion Detection System with On-Demand Routing Protocol using Hybrid Cryptographic Technique for Mobile Adhoc Networks.

Bachelor of Engineering, Computer Engineering *March 2010*
Purbanchal University *Biratnagar, Nepal*

EXPERIENCE

Post Doctoral Research Fellow *April 2022 - Present*
The Hebrew University of Jerusalem *Jerusalem, Israel*

Founding President *February 2022 - Present*
Center for Multidisciplinary Studies and Innovation (CeMuSI) *Kathmandu, Nepal*

Post Doctoral Research Fellow and Special Research Assistant *September 2020 - August 2022*
The State Key Laboratory of Information Security, Institute of Information Engineering, Chinese Academy of Sciences *Beijing, China*

Data Center Engineer *May 2021 - December 2021*
Troll Housing AS *Klemmertåsen, Norway*

Doctoral Researcher *September 2016 - July 2020*
High Performance Computer Research Center,
Institute of Computing Technology, Chinese Academy of Sciences *Beijing, China*

IT Expert *August 2015 - August 2016*
National Examination Board, Ministry of Education, Government of Nepal *Kathmandu, Nepal*

Founding Managing Director	*November 2011 - Present*
Harness Solution Pvt. Ltd.	*Kathmandu, Nepal*
Computer Engineer	*May 2011 - August 2012*
Higher Secondary Education Board, Ministry of Education, Government of Nepal	*Kathmandu, Nepal*

AWARDS AND ACHIEVEMENTS

Excellent International Student Award 2019	*2019*
University of Chinese Academy of Sciences	*Beijing, China*
CAS-TWAS President Fellowship	*2016*
The World Academy of Sciences (TWAS)	*Trieste, Italy*

PROJECT INVOLVEMENT

Performance and Energy Trade-off in Server Consolidation *2022- 2024*
Ministry of Science and Innovation, Spain

Key Technology and Equipment of Efficient Cloud Computing Data Center *2017- 2021*
National Key Research and Development Plan for Ministry of Science and Technology of the People's
Republic of China
Grant Number: 2017yfb1010001

Efficient Data Center- Optimization, Organization and Scheduling of Data Center Resources *2016-*
2020
National Natural Science Foundation of China International Cooperation Project
Grant Number: 61520106005

Project Title: Basic Theory and Key Technology of Edge Computing *2018- 2020*
Key International Cooperative Research Project of National Natural Science Foundation of China
Grant Number: 61761136014

ACADEMIC PROJECTS

Energy-aware Fault-tolerant Dynamic Task Scheduling	*2018*
Classification based Efficient Dynamic Scheduling	*2019*
Prediction based Energy-aware Fault-tolerant Scheduling	*2019*
Eco-friendly Regional Scheduling	*2020*

PROFESSIONAL PROJECTS

National Examination Board Core Examination System	*2016*
National Examination Board, Ministry of Education, Government of Nepal	*Role: IT Expert*
National Examination Board Automation System	*2016*
National Examination Board, Ministry of Education, Government of Nepal	*Role: IT Expert*
Mid-Western University Management Information System	*2015*
Mid-Western University	*Role: Project Engineer*
Higher Secondary Education Board Automation System	*2012*
Higher Secondary Education Board(HSEB), Ministry of Education, Government of Nepal	*Role:*
	Computer Engineer

PROFESSIONAL ACTIVITIES

Member   *2016*
Examination and Selection Committee for Computer Operator, National Examination Board, Ministry of Education, Government of Nepal

Member   *2012*
Publication Committee, Ministry of Education, Government of Nepal

Member   *2012*
Budget Committee, Higher Secondary Education Board, Ministry of Education, Government of Nepal

Member   *2011*
Budget Committee, Higher Secondary Education Board, Ministry of Education, Government of Nepal

PROFESSIONAL SERVICE: EDITOR

Special Issue Editor   *2021*
Special Issue on AI-driven Sustainable Cloud/Edge System
Sustainable Computing: Informatics and Systems (SUSCOM)
https://www.journals.elsevier.com/sustainable-computing-informatics-and-systems/call-for-papers/ai-driven-sustainable-cloud-edge-system-si-sustainable-ai-cloud-edge

Special Issue Editor   *2021*
Special Issue on Long-Term Interactive Humanoid Robots in the Age of AI
International Journal of Humanoid Robotics
https://www.worldscientific.com/page/ijhr/callforpaper08

Special Issue Editor   *2021*
Special Issue on Reservoir Computing - Trends and Applications
Connection Science, Taylor and Francis

PROFESSIONAL SERVICE: REVIEWER

IEEE Transactions on Industrial Informatics
IEEE Transactions on Cloud Computing
Future Generation Computer System, Elsevier
Sustainable Computing: Informatics and Systems, Elsevier
Mobile Networks and Applications, Springer

PROFESSIONAL ASSOCIATIONS

Institute of Electrical and Electronics Engineers (IEEE)
International Association of Engineers (IAENG)
The Association for Computing Machinery (ACM)
Nepal Engineering Association

MEDIA PROFILES

LinkedIn: https://www.linkedin.com/in/avinab-marahatta/
Researchgate: https://www.researchgate.net/profile/Avinab-Marahatta
Personal Page: https://aviauraa.github.io/home/
Website: https://www.avinab.com.np

TALKS

- AI-driven resource provisioning and scheduling for cloud data center AT Smart and resilient Computing for Physical Environment (SCOPE) lab, Vanderbilt University, USA   *2021*

- Eco-friendly Task Scheduling for Regional Data Center AT e-Energy, Australia   *2020*

- Classification-based scheduling for cloud AT Huazhong University of Science and Technology *2019*

- Energy-aware Fault-tolerant scheduling scheme based on intelligent prediction model for cloud data center AT IGSC, Pittsburgh, USA   *2018*

PUBLICATIONS

1. **Avinab Marahatta**, Carlos Juiz, "A QoS-aware and Power-aware Task Scheduling for Cloud Data Center", IEEE Transactions on Sustainable Computing, 2022. **(Submitted)**

2. Suresh Kumar, Jyoti Prakash Singh, Suryakant S, **Avinab Marahatta**, "A Hybrid Deep Ranking Weighted Multi-Hashing Recommender System", Computational Intelligence and Neuroscience, Hindawi, 2022. **(Submitted)**

3. Neha Jain, **Avinab Marahatta**, Vinay Kumar Jain, Suryakant S, "Homography Based Multi-View Object Detection For Smart Traffic Management System", Computational Intelligence and Neuroscience, Hindawi, 2022. **(Submitted)**

4. Meena Chaudhary, **Avinab Marahatta**, Jyoti Pruthi, Vinay Jain, Suryakant S, "A Novel Squirrel Search Fuzzy Clustering for Text Clustering", Computational Intelligence and Neuroscience, Hindawi, 2022. **(Submitted)**

5. Suresh Kumar, **Avinab Marahatta**, Jyoti Prakash Singh, Vinay Kumar Jain, "A Deep Ranking Weighted Multihashing Recommendation System for Item Recommendation", Computational Intelligence and Neuroscience, Hindawi, 2022.

6. Kaixuan Ji, Ce Chi, Fa Zhang, Antonio Fernández Anta, Penglei Song, **Avinab Marahatta**, Youshi Wang, Zhiyong Liu, "Energy-Aware Scheduling Based on Marginal Theory and Task Classification in Heterogeneous Data Centers", energies, MDPI, 2021.

7. Ce Chi, Kaixuan Ji, Penglei Song, **Avinab Marahatta**, Shikui Zhang, Fa Zhang, Dehui Qiu, Zhiyong Liu, "Cooperatively Improving Data Center Energy Efficiency Based on Multi-Agent Deep Reinforcement Learning", energies, MDPI, 2021.

8. **Avinab Marahata**, Qin Xin, Fa Zhang and Zhiyong Liu, "PEFS: AI-driven Prediction based Energy-aware Fault-tolerant Scheduling Scheme for Cloud Data Center" IEEE Transactions on Sustainable Computing, 2020.

9. Ji Kaixuan, Fa Zhang, Ce Chi, Penglei Song, Biyu Zhou, **Avinab Marahatta**, and Zhiyong Liu, "A Joint Energy Efficiency Optimization Scheme Based on Marginal Cost and Workload Prediction in Data Centers", IGSC, 2020.

10. Ce Chi, Fa Zhang, Ji Kaixuan, **Avinab Marahatta** and Zhiyong Liu, "Improving Energy Efficiency in Colocation Data Centers for Demand Response", IGSC, 2020.

11. **Avinab Marahatta**, Ce Chi, Kaixuan Ji, Fa Zhang, Carlos Juiz and Zhiyong Liu, "Eco-friendly Task Scheduling for Regional Data Center", 1st International Workshop on Energy Efficiency at the Edge (WEEE), e-Energy, 2020.

12. Kaixuan Ji, Ce Chi, **Avinab Marahatta**, Fa Zhang and Zhiyong Liu, "Energy Efficient Scheduling Based on Marginal Cost and Task Grouping in Data Centers", 8th International Workshop on Energy-Efficient Data Centres (E2DC2020), e-Energy, 2020.

13. Ce Chi, Kaixuan Ji, **Avinab Marahatta**, Penglei Song, Fa Zhang and Zhiyong Liu , "Jointly Optimizing Task Scheduling and Cooling System for Data Center Energy Efficiency based on Multi-Agent Deep Reinforcement Learning", 8th International Workshop on Energy-Efficient Data Centres (E2DC2020), e-Energy, 2020.

14. Ce Chi, Kaixuan Ji, **Avinab Marahatta**, Fa Zhang, Youshi Wang and Zhiyong Liu, "An Energy Saving-Oriented Incentive Mechanism in Colocation Data Centers", ICCCN, 2020.

15. Ce Chi, Kaixuan Ji, **Avinab Marahatta**, Fa Zhang, Youshi Wang and Zhiyong Liu , "An Incentive Mechanism for Improving Energy Efficiency of Colocation Data Centers Based on Power Prediction" , ISCC, 2020.

16. **Avinab Marahata**, Ce Chi, Fa Zhang and Zhiyong Liu, "Energy-aware Fault-tolerant Scheduling Scheme based on Intelligent Prediction Model for Cloud Data Center" 9th International Green and Sustainable Computing Conference (IGSC), Pittsburgh, USA, 2018.

17. **Avinab Marahatta**, Sandeep Pirbhulal, Fa Zhang, Reza M. Parizi, Kim-Kwang Raymond Choo and Zhiyong Liu, Classification based Energy Efficient Dynamic Task Scheduling Scheme for Virtualized Cloud Data Center, IEEE Transactions on Cloud Computing, 2018.

18. Sumarga Kumar Sah Tyagi, Yiqing Zhou, Tian Lin, **Avinab Marahatta** and Jinglin Shi, "Realization of a Computational efficient BBU cluster for Cloud RAN" Cluster Computing, Springer, March 2018.

19. **Avinab Marahatta**, Youshi Wang, Fa Zhang, Arun Kumar Sangaiah, Sumarga Kumar Sah Tyagi and Zhiyong Liu, " Energy-Aware Fault-Tolerant Dynamic Task Scheduling Scheme for Virtualized Cloud Data Centers", Mobile Networks and Applications, Springer, 2018.

20. **Avinab Marahatta** , "Enhanced Intrusion Detection System for MANETs", LAP LAMBERT Academic Publishing, 2019.

21. **Avinab Marahatta** and Suresh Babu Kare, "Enhanced Intrusion Detection System with On-Demand Routing Protocol using Hybrid Cryptographic Technique for MANETs", IJSER,Volume 5, Issue 8, 2014.

22. Venkata Naga Kiranmai Malladi, **Avinab Marahatta** and Suresh Babu Kare, "(t, n) Threshold Scheme to Enhance the Security of the Password Repository", IJSR, Volume 3, Issue 8, 2014.