

# Vaskar Raychoudhury

Senior Member, ACM

Senior Member, IEEE

DAAD Fellow

Humboldt Fellow

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CONTACT	Associate Professor (tenured since Aug. 2022) Director, SMART Research Lab Graduate Program Co-director Department of Computer Science & Software Engineering 364 Mcvey Data Science Building Miami University, Oxford, OH 45056 <a href="https://miamioh.edu/profiles/cec/vaskar-raychoudhury.html">https://miamioh.edu/profiles/cec/vaskar-raychoudhury.html</a> <a href="https://scholar.google.com/citations?user=GX5RGegAAAAJ&amp;hl=en">https://scholar.google.com/citations?user=GX5RGegAAAAJ&amp;hl=en</a>	Office: (+1) 513-529-0845 e-mail: <a href="mailto:vaskar@gmail.com">vaskar@gmail.com</a> <a href="mailto:raychov@miamioh.edu">raychov@miamioh.edu</a> Teams: it_vaskar Mobile: 513-293-0730
RESEARCH INTERESTS	Large-scale Data Analysis & Mining, Applied Machine Learning and AI, Distributed and Bio-inspired Algorithms, Mobile & Pervasive Computing, Wireless Sensor Networks and Internet-of-Things (IoT), Cross-domain Human-centric Applications, Federated and Open-world Learning	
PAST WORK EXPERIENCE	<ul style="list-style-type: none"><li>Assistant Professor in the Department of Computer Science &amp; Engineering, Indian Institute of Technology (IIT) Roorkee, India (October 27, 2011 – January 10, 2018)</li><li>Alexander von Humboldt Postdoctoral Research Fellow at the University of Mannheim, Germany (May 2016 - July 2017 &amp; June - August 2018)</li><li>Visiting Assistant Professor, Department of Computer Science (Informatik), Technische Universität Darmstadt, Germany (June - July 2015)</li><li>Postdoctoral Researcher Engineer in the Handicom Lab, Telecommunication Network and Services Department, Institut Telecom &amp; Management SudParis, Evry, France (March - October 2011)</li><li>Postdoctoral Research Associate, Internet, and Mobile Computing Lab, Department of Computing, The Hong Kong Polytechnic University (May 2010 – February 2011)</li></ul>	
EDUCATION	<p>Ph.D. in Computing, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong April 2006 – May 2010</p> <p>M.S. (by research) in Information Technology, Indian Institute of Technology (IIT) Kharagpur, India August 2003 – January 2006</p> <p>B.Tech. in Information Technology, Kalyani University, West Bengal, India September 1999 – July 2003</p>	
HONOURS AND AWARDS	<ul style="list-style-type: none"><li>Miami University Creativity and Innovation Award, 2023</li><li><i>Student Recognition of Teaching Excellence Award from MU (Fall 2020)</i></li><li>ACM Senior Member since July 2017</li><li>Alexander von Humboldt Postdoctoral fellowship in March 2015 (One of only 9 people among 193 countries to receive AvH fellowship in Computer Science in 2015) [It is one of the most prestigious and generous global research awards made by Germany since 1860.]</li><li>DAAD-IIT joint fellowship on bilateral academic exchange for the year 2015.</li><li>IEEE Senior Member since April 2014</li></ul>	
PUBLICATIONS	<p><b>Journal Publications (Total 24)</b></p> <ol style="list-style-type: none"><li>A. Mehra#, D. Singh#, S. Saha, V. Raychoudhury and A. Mathur, “Last Mile: A Novel, HotSpot Based Distributed Path-Sharing Network for Food Deliveries”, IEEE Transactions on Intelligent Transportation Systems, October 05, 2024, DOI: 10.1109/TITS.2024.3465217</li><li>A. Seetha\$, S.S Chouhan, E.S. Pilli, V. Raychoudhury, and S. Saha, “DiEvD-SF : Disruptive Event Detection using Continual Machine Learning with Selective Forgetting”, IEEE Transactions on Computational Social Systems on Dec. 04, 2023</li><li>A. Seetha\$, S.S Chouhan, E.S. Pilli, and V. Raychoudhury, “DiEvD: Disruptive Event Detection from Dynamic Datastreams using Continual Machine Learning: A Case Study with Twitter”, IEEE Transactions on Emerging Topics in Computing on May 02, 2023. (DOI 10.1109/TETC.2023.3272973)</li><li>J. Parmar\$, S.S. Chouhan, V. Raychoudhary, and S.S. Rathore, “Open-world Machine Learning: Applications, Challenges, and Opportunities,” ACM Computing Surveys (CSUR), Aug., 2022 (CORE – A*).</li><li>H. Yu\$, V. Raychoudhury, S. Saha, J. Edinger, R.O. Smith, Md O. Gani, “Automated Surface</li></ol>	

Classification System using Vibration Patterns - A Case Study with Wheelchairs,” IEEE Transactions on Artificial Intelligence, June, 2022

6. A. Manjunath#, V. Raychoudhury, S. Saha, S. Kar, A. Kamath#, “CARE-Share: A Cooperative and Adaptive Strategy for Distributed Taxi Ride Sharing”, IEEE Transactions on Intelligent Transportation Systems, March 2021, <https://doi.org/10.1109/TITS.2021.3066439>.
7. D. Saxena\$ and V. Raychoudhury, “Design and Verification of an NDN-based Safety-critical Application: A Case Study with Smart Healthcare,” in IEEE Transactions on Systems, Man, and Cybernetics: Systems, Vol. 49, No. 5, pp. 991-1005, July 2017.

#### Conference Publications (Total 38)

1. A.M. Shaikh, H. Nambiar, K. Ghate, S. Banik, S. Sen, S. Ghosh, V. Raychoudhury, N. Ganguly, S. Saha. Self-SLAM: A Self-supervised Learning Based Annotation Method to Reduce Labeling Overhead. In: Machine Learning and Knowledge Discovery in Databases. Applied Data Science Track. ECML PKDD, September 9 – 13, 2024, Vilnius, Lithuania. Lecture Notes in Computer Science (LNAI), vol 14949. Springer, Cham, [https://doi.org/10.1007/978-3-031-70378-2\\_8](https://doi.org/10.1007/978-3-031-70378-2_8) (CORE RANK: A).
2. R. Banerjee, E. Han, L. Li, H. Yu, Md O. Gani, V. Raychoudhury, and R.O. Smith., "FedAccess: Federated Learning-Based Built Surface Recognition for Wheelchair Routing," 2024 IEEE 48th Annual Computers, Software, and Applications Conference (COMPSAC), Osaka, Japan, July 2-4, 2024, pp. 1406-1415, doi: 10.1109/COMPSAC61105.2024.00185. (CORE RANK: B)
3. A. Mehra, S. Saha, V. Raychoudhury and A. Mathur, "DeliverAI: Reinforcement Learning Based Distributed Path-Sharing Network for Food Deliveries," 2024 International Joint Conference on Neural Networks (IJCNN), Yokohama, Japan, June 30 - July 5, 2024, Yokohama, Japan, pp. 1-9, doi: 10.1109/IJCNN60899.2024.10651403. (CORE RANK: B)
4. T. Nguyen†, Md F. Islam\*, R. Banerjee\$, H.M. Noyce\*, E.M. Olejniczak\*, R.O. Smith, Md O. Gani, and V. Raychoudhury, “MyPath: Accessible Route Generation using Crowd-sensed Surface Information”, 20th EAI International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services (MobiQuitous), November 14-17, 2023, Melbourne, Australia (Short Paper with 12 Pages). (CORE RANK: C)
5. R. Banerjee, Md F. Islam, S. Saha, Md O. Gani, and V. Raychoudhury, “Surface Recognition from Wheelchair-induced Noisy Vibration Data: A Tale of Many Cities”, 18th International Conference on Mobility, Sensing and Networking (MSN 2022), December 14-16, 2022 · Guangzhou, China

#### RESEARCH STUDENTS

2 PhD, 29 MS/M.Tech, 22 UG Research Asst, 12 UG Summer Scholars, 54 Capstone students

#### TEACHING

Algorithms, Machine Learning, Artificial Intelligence, Object Oriented Programming in Java, Advanced Computer Networking, Parallel and Distributed Algorithms, Computer Architecture & Microprocessors, System Software, Operating Systems

#### LEADER-SHIP ROLE

Graduate Program Co-Director, CSE Scholarships and Awards Committee Chair, Generative AI committee member, Promotion & Tenure Committee member, Mentoring Committee member

#### PROFESSIONAL ACTIVITY

##### Invited Talks

- Invited talk in the Dept. of CSE, Wright State University, Ohio, March 06, 2023
- Invited talk in the Dept. of Biomedical Engg., Univ of Wisconsin Milwaukee, May 18, 2023
- Siemens Corporate Technology, Cyber-Physical Systems Division, Princeton NJ, Mar. 24, 2017
- IBM T.J. Watson Research Centre, Yorktown Heights, NY USA, Mar. 6, 2017
- Dept. of CS, Rochester Inst. of Technology, NY, USA, Mar. 3, 2017
- Dept. of Computer Science, University of Bologna, Italy, Feb 23, 2017
- IBM India Research Lab (IRL), Vasant Kunj, New Delhi, April 20, 2016.

##### Chairing Responsibilities:

- CORE A / A\* Conferences: IEEE PERCOM; EAI MobiQuitous, IEEE CCGrid, etc.

##### Journal Editorial Board Member:

- Editorial Board Member of the Elsevier Journal-of-Network-and-Computer-Applications (JNCA) (Dec 15, 2016 – Dec 13, 2021).