

DR. NOVA AHMED [NVA]

Professor

Education

- Ph.D in Computer Science, Georgia Institute of Technology, USA.
- MS in Computer Science, Georgia State University, USA.
- MS in Computer Science, University of Dhaka, Bangladesh
- BS in Computer Science, University of Dhaka, Bangladesh

Experiences

- Professor, North South University, Bangladesh (2022 – present)
- Honorary Professor, IIT Guwahati, India (2023-2025)
- Research Scientist II, GoerigaTech Research Institute, GTRI, USA (June, 2010- Dec, 2021)
- Research Intern, Federal Reserve Bank, Atlanta, USA (Nov, 2009- May, 2010)
- Graduate Research Assistant, Georgia Institute of Technology, USA (Aug, 2005-May, 2010)
- Graduate Research Assistant, Georgia State University, USA (Aug, 2003- Dec, 2004)
- Lecturer, University of Dhaka, Bangladesh (Jan, 2003- Jul, 2003)

Office: SAC 927

Office hours:

- Will be updated on canvas!
- Feel free to stop by through the week, otherwise.

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Google Scholar URL: <https://scholar.google.com/citations?user=rXMM2MwAAAAJ&hl=en&authuser=1>

Scopus Profile: <https://orcid.org/0000-0002-7715-1742>

Biography

Dr. Nova Ahmed received her bachelor's degree from the University of Dhaka in Computer Science. She has served as a faculty member in the University of Dhaka right after her graduation. She pursued her MS at Georgia State University and doctoral degree from Georgia Institute of Technology. She served in

Georgia Tech Research Institute (GTRI) for a year. She joined North South University since she came back to Bangladesh to serve her country. She enjoys playing with her daughters Anuva and Arisha in her leisure time!

Research Areas

- Cloud Computing and Distributed Systems
- Human Computer Interaction (HCI)
- Artificial Intelligence & Robotics
- Mobile, Wireless and Web Applications Development
- Database and Information Systems
- Embedded Systems and Internet of Things (IoT)

Research Interests

Computing for Good, Healthcare, Education, Cloud and Distributed Computing, Sensor and Systems, Feminist HCI, ICT for D, Privacy, Social Justice

Teaching

- CSE 323 Operating Systems Design
- CSE499B/EEE499B/ETE499B – Senior Design II
- CSE 115 Programming Language I
- CSE 115L Programming Language I Lab

Selected Publications

Journals

- Nova Ahmed, Shuvashis Ghosh, Rifat Ahmed Hassan, Sian Iftekher Galib, AK Azad, Minhaz Ahmed Syrus, “A gradient sensing middleware to handle flash flood,” Computers & Electrical Engineering, 2017
- Nithya Sambasivan, Garen Checkley, Nova Ahmed, Amna Batool, “Gender equity in technologies: considerations for design in the global south,” ACM Interact, 2017
- Ahmed, M. S., & Ahmed, N, “A Fast and Minimal System to Identify Depression Using Smartphones: Explainable Machine Learning–Based Approach,” JMIR Formative Research, 7, e28848., 2023
- Rony, R. J., Ahmed, M. S., Sarcar, S., & Ahmed, N. , “Understanding Driving Stress in

Urban Bangladesh: An Exploratory Study, Wearable Development and Experiment.," ACM Journal on Computing and Sustainable Societies., 2024

- Sinha, A., Ahmed, N., Ahmed, S., Abeer, I. A.,, "Roles of Technology for Risk Communication and Community Engagement in Bangladesh during COVID-19 Pandemic," ACM Journal on Computing and Sustainable Societies., 2024
 - Ahmed, N., Chowdhury, A. M., Urmi, T., & Jamal, L. , "Impact of socio-economic factors on female students' enrollments in science, technology, engineering and mathematics and workplace challenges in Bangladesh.," American Behavioral Scientist, , 2023
 - Manoshi Das Turjo, Khushboo Suchit Mundada, Nuzhat Jabeen Haque, Nova Ahmed, "Predicting the Transition From Depression to Suicidal Ideation Using Facebook Data Among Indian-Bangladeshi Individuals: Protocol for a Cohort Study," JMIR Research Protocol, 2024
 - N Ahmed, A Khuda, SJ Chowdhury, T Rezwana, MSU Islam, S Sajjad, "Youth-Driven, Community-Engaged Waste Management," The Journal of Community Informatics, 2024
 - MS Ahmed, T Hasan, S Islam, N Ahmed, "Investigating Rhythmicity in App Usage to Predict Depressive Symptoms: Protocol for Personalized Framework Development and Validation Through a Countrywide Study," JMIR Research Protocol, 2024
 - M Wong-Villacres, C Kutay, S Lazem, N Ahmed, C Abad, C Collazos, "Making ethics at home in Global CS Education: Provoking stories from the Souths," ACM Journal on Computing and Sustainable Societies., 2024
 - Ifti Azad Abeer, Anik Sinha, Anik Saha, Syeda Shabnam Khan, Nova Ahmed, "A Platform for Connectivity and Synergy between Parents and Teachers of Children with Autism," ACM Journal on Computing and Sustainable Societies., 2024
- Conference Papers
- Lamia Iftekhar, Nova Ahmed, Fahima Chowdhury, Ridita Rahman, "Electrical and Computer Engineering Laboratory Education for Female Undergraduate Students," The 10th International Conference on Computer Science & Education, ICCSE,

2015

- Syed Ishtiaque Ahmed, Steven J. Jackson, Nova Ahmed, Hasan S. Ferdous, Md. R. Rifat, Abu S. Rizvi, Shamir Ahmed, Rifat S. Mansur, "Protibadi: A Platform for Fighting Sexual Harassment in Urban Bangladesh," ACM Conference on Human Factors in Computing Systems, CHI, 2014
- Nithya Sambasivan, Garen Checkley, Amna Batool, Laura Sanely Gaytán-Lugo, Tara Matthews, Sunny Consolvo, Elizabeth Churchill, ""Privacy is not for me, it's for those rich women": Performative Privacy Practices on Mobile Phones by Women in South Asia," Fourteenth Symposium on Usable Privacy and Security ({SOUPS} 2018), Best Paper Award, 2018
- Nazmul Hossain, Mohammad Tanzir Kabir, Tarif Riyad Rahman, Mohamed Sajjad Hossen, Fahim Salauddin, ""A Real-time Surveillance Mini-rover Based on OpenCV-Python JAVA Using Raspberry Pi 2: An Application of Internet of Things (IoT)," 5th IEEE International Conference on Control Systems, Computing and Engineering (ICCSCE 2015),

2015

- Ahmed, M. S., Rony, R. J., Hadi, M. A., Hossain, E., & Ahmed, N., "A Minimalistic Approach to Predict and Understand the Relation of App Usage with Students' Academic Performance.

Proceedings

of

the

ACM

on

Human-Computer

Interaction," Proceedings of the ACM on Human-Computer Interaction, 7(MHCI), 1-2, 2024

Research Projects & Grants

Grants

Projects

- North South University, UIU Research Grant, 2024, BDT 5 lac

- SIPG funding, North South University, PI, 2024, Amount BDT 2 lac
- North South University, Research Grant, 2023, BDT 5 lac
- North South University, Co-PI, Research Grant, 2023, BDT 2 lac
- Google South Asia & Southeast Asia Research Awards, PI, 2022. Amount 20,000 USD
- North South University, UIU Research Grant, 2022, BDT 5 lac
- North South University Research Grant, 2021, BDT 2 lac
- GCRF Funding, In collaboration with Cardiff University, 2021 Amount of 5000 Euro
- Bill and Melinda Gates Foundation, 2020, funding of 231,000 USD
- North South University Research Grant, 2020, BDT 2 lac
- ACM SIGCHI Development Fund, 2019 funding of 12000 USD
- ACM SIGCHI Development Fund, 2018, funding of 12000 USD
- Next Billion Users Project, Google, 2017, funding of 12000 USD
- North South University Research Grant, 2017 BDT 4 lac
- Systems Anita Borg Pass It On Award, 2015, USD 1000
- Innovation Grant of Tk 1 Million by Ministry of ICT, Govt of Bangladesh, 2014
- Funding of TK 1.5 lac from a Project Collaborating with University of Toronto, 2014-2015
- Funding TK 3 Lac, North South University Innovation Funding, 2012-2013
- Google, Primary Investigator (January, 2023- December 2023). My Freedom through Joy: The project aims to explore challenges and opportunities for women in computing
- Bangladesh Open Source Network Primary Investigator (April, 2022- August 2022). Women in ICT: The project aims to explore challenges and opportunities for women working in ICT sector.
- Bill and Melinda Gates Foundation Primary Investigator (December, 2020- March, 2022). Women Empowerment and Inclusive Technology: The project focuses on intersection of gender and technology, particularly focusing on Fintech usage.
- Cardiff University. Researcher and Co PI(January 2020- Present). Elderly care: Working on a joint research work on technology to support elderly community of Bangladesh.
- Monash University. Researcher (January 2019- December 2020). Protik Project I. Women Empowerment: The research work focuses marginal women affected by

cyclone, who can empower each other through information dissemination using technology.

- BRAC University. Consultant (January 2020- June 2020) Lead Researcher, Bangladesh. Designing Technology for Garments Workers: Here the research work is involved in understanding the challenges faced by women working in the Garments Industry and can a solution be designed to support them for better healthcare and finance management.
- Her Stories. Researcher (August 2019- December 2019). Qualitative Research: Research interviews, background and generation of personal stories of Ferdousi Priobhashini and Rokeya Afzan Rahman included in Her Stories, Volume II.
- Google. Consultant (August 2018- August 2019) Lead Researcher, Bangladesh. One Billion User Project. Inclusive Technology for Women: The Goal of this project is to understand the challenges women face in using technology and designing solution approaches that is inclusive for women in South Asia where the researcher explored the concept in the perspective from Bangladesh.

Professional Activity

INVITED TALKS, PANELS, INTERVIEW

- Keynote Speaker, India HCI, IIT Mumbai (2024)Keynote Speaker, Global AI Conference, Saudi Arabia (2024)
- Keynote Speaker, Women's Day Celebration, North South University (2023)
- Invited Guest Speaker, Georgia Institute of Technology, Gender and Inclusion (2023)
- Invited Guest Speaker, Georgia Institute of Technology, Gender and Inclusion (2022)
- Keynote Speaker, ACM W Celebration, Asia Pacific Region, (2021)
- Women in AI Ethics Collective TM, Panel Member (2021)
- UN Regional Economic Commission UNESCO – Nominated Young Scientist for Youth Dialogue (2021)
- Conference of Ethics Science and Technology and Sustainable Development, UNESCO, Ministry of Higher Education, Thailand, Invited speaker (2019)
- IAP-Res Conference, Brazil, Invited speaker (2019)

- WIE, Dhaka, Speaker (2019)
- ACM-W, Dhaka, Invited Speaker (2019)
- Missing Daughter Initiative, Bangladesh, Invited Speaker (2019)
- Women in Science without Borders, South Africa, Panel (2018)
- MobileHCI, Spain, Invited Speaker (2018)
- Interact, India, Invited Speaker (2017)
- MobiSys, Singapore, Speaker (2016)
- ICT Ministry, Dhaka, Invited Speaker (2016)
- WIE-STEM, Bangladesh, Invited Speaker (2016)
- Samsung R&D, Bangladesh, Invited Speaker (2015)
- Georgia Institute of Technology, Panel (2008)

Reviewer

- Board of Accreditation for Engineering and Technology Education BAETE (2017 – present) Chair, 2018, Member, 2017
- Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (2020 – present)
- International Journal of Human-Computer Studies (2019 – present)
- ACM Transaction of Computer Human Interaction (2019 – present)
- Elsevier Journal of Computer and Electrical Engineering (2016 – present)
- IEEE Journal of Parallel and Distributed Computing, (2014- Present)

Chair & Organizer

- CHI Reviewer, LBW, 2024
- Ada Lovelace Celebration for Women in Computing, Bangladesh, 2020, 2021, 2022
- alt.chi, CHI, Chair, 2021, 2022
- ACM SIGCHI Asian Development Committee, Member, 2019
- ACM SIGCHI Summer School in Bangladesh, 2019
- Special Interest Group Motherhood Across Border with CHI, 2019
- HCI Across Border Symposium with CHI 2017, 2018, 2019
- IEEE Comsnet, Mentoring Chair

- Women in Science without Borders, 2018
- Ubicomp Diversity Chair, 2018
- Broadening Participation Workshop with Ubicomp 2018

Member

IEEE, WIE, ACM, ACM W, WIE, OWSD, SIGCHI, SIGCHI-Dhaka, SIGCHI Asian Development Committee, GYA, NYAB, Women in STEMM

Mentor

Mentors for Scholars at Risk Program for Refugee Scientists (2019), Yellow Jacket Mentoring Program (2017), Undergraduate and Graduate Students under the SAIC Scholars Program (2006 – 2008),

Awards

Best Journal Paper Award, ACM COMPASS. (2023)

Google South and Southeast Asia Research Award (2022)

INGSA_Asia Essay Contest 2020, Honourable Mention (2021)

Commonwealth of Learning Grow with Google Skill Development Scholarship (2021)

IQAC Research Award (2021)

Best Paper Award, (ICAIST, 2020)

GCRF Award, Cardiff University, 2020

Grace Hopper Conference for Women in Computing, Faculty Scholar, 2019

Fellowship, XXIV South Asian Feminist Capacity Building Course on Gender, Sustainable Livelihoods, Human Rights and Peace, 2019

ACM SIGCHI Development Grant, 2019 (SIGCHI Dhaka, Winter School, 2019)

Best Paper Award (CHI, 2019)

Best Poster Award (Comsnet, 2019)

ACM SIGCHI Development Grant (SIGCHI Dhaka, Summer School, 2019)

IAPP Distinguished Privacy Award, (SOUPS, 2018)

Best Poster Award, (HCI Across Border, CHI 2018)

ACM SIGCHI Development Grant (Ubicomp, 2019)

Best Paper Award, (Global Engineering, Science and Technology Conference, 2014)

New Investigators Award (Grace Hopper Celebration for Women in Computing, 2013)

New Investigators Paper (Grace Hopper Celebration for Women in Computing, 2009)

Finalists in the Georgia Tech Research and Innovation Competition (GTRIC, 2010).

ACM Student Research Competition Award, 2nd Place Winner (ASSETS, 2009)

Essay Competition Winner (Upsilon Pi Epsilon, 2009)

ACM-W Scholarship Recipient (Spring 2010, Fall 2007)

NSF travel grant recipient (Spring 2010, Fall 2008, Fall 2007)

Deans Honour (University of Dhaka, 2002)

Talent pool Scholarship (University of Dhaka 1995 to 2000)

6th position, of the Dhaka University Team (ACM ICPC 1999)

3rd Position of the Dhaka University Team (NCPC 1998)