

Institute of Development Studies (IDS)
Library Road
Brighton
BN1 9RE
UK

E: m.zaber@ids.ac.uk
T: +44 (0)1273 915691
X: @zabermi
W:
L: <https://www.linkedin.com/in/moinulzaber/>

CURRENT EMPLOYMENT: Research Fellow, Institute of Development Studies

THEMATIC EXPERTISE: Artificial Intelligence, Machine Learning, Human-Centered Design, Usable Privacy, Digital Transformation, Economics of AI, Data Governance, Development Policy, Digital Inclusion, Communication Infrastructure Policy and Regulation

GEOGRAPHICAL EXPERTISE: South Asia, East Africa, Southeast Asia

OVERVIEW

With over 19 years of experience in leading research and teaching in Computer Science, Artificial Intelligence, Machine Learning, Human-Computer Interaction, Spectrum Management, and Telecommunications Technology Policy, I have a proven track record of driving successful interdisciplinary projects. My work has primarily focused on building safe and user centric **Machine Learning technologies for development** and understanding the implications of these technologies, particularly in the **Emerging Economies**.

EDUCATION AND QUALIFICATIONS

2014	Ph.D., Engineering and Public Policy College of Engineering, Carnegie Mellon University, Pittsburgh, PA. U.S.A, August 2009 – September 2014.
2012	M.S. (Research) College of Engineering, Carnegie Mellon University, Pittsburgh, PA, U.S.A.
2006	M.S (Research), Computer Science and Engineering Department of Computer Science and Engineering, University of Dhaka, Dhaka, Bangladesh.
2004	B.S. (with Honors.), Computer Science and Engineering Department of Computer Science and Engineering, University of Dhaka, Dhaka, Bangladesh.

KEY ACHIEVEMENTS

DIRECTED RESEARCH INITIATIVES:	Expert in Human centric AI research and public policy focusing global south.
POLICY CONTRIBUTION:	Actively participated in national and international committees, advising on spectrum management, price setting, AI governance and data-centric technology policy and design.
TEACHING & KNOWLEDGE DISSEMINATION:	Over 19 years of experience in teaching, curriculum designing, mentoring students of Computer Science & Engineering and interdisciplinary courses at prestigious universities, and more than a decade of training international governmental and non-governmental organizations
ACADEMIC & PROFESSIONAL ENGAGEMENT:	Served as a professor, trainer, organizer, reviewer, and editorial board member for international conferences and journals.
PUBLICATIONS:	Authored numerous scientific journals, articles, white papers for the industry and op-eds on technology and policy.
INTERNATIONAL COLLABORATION:	Worked with international organizations including the U.N. to foster research initiatives and develop innovative solutions.

RECORD OF EMPLOYMENT

FEB 2025 – PRESENT	Research Fellow , Institute of Development Studies (IDS), UK.
SEP 2024 – PRESENT	Visiting Academic , Department of Computer Science and Technology, University of Cambridge, UK.
JUNE 2024 – PRESENT	Visiting Professor , Institute of AI for good, Reitaku University, Tokyo, Japan.
JULY 2022 – PRESENT	Professor (on-leave) , Department of Computer Science and Engineering, University of Dhaka, Dhaka, Bangladesh.
MAY 2020– JULY 2020	Visiting Associate Professor , Center for Spatial Information Systems (CSIS), University of Tokyo, Japan.
JULY 2019 – JULY 2024	Senior Academic Fellow , United Nations University E-government Operating Unit (UNU-EGOV), Guimaraes, Portugal.
JUNE 2016 – AUG 2022	Associate Professor , Department of Computer Science and Engineering, University of Dhaka, Dhaka, Bangladesh.
JAN 2017 – PRESENT	Founder and Director, Data and Design Lab , A data driven public policy research lab harnessing the possibilities of Machine learning, Data Science and Design Thinking. [https://dndlab.org]
SEP 2016 – SEP 2018	Affiliated Researcher , Technology Management and Economics Department, Chalmers University, Sweden.
SEP 2015 – SEP 2016	Post-doctoral Fellow , Technology Management and Economics Department, Chalmers University, Sweden.

JAN 2013 – JAN 2019	Research Fellow, LIRNEasia , regional think tank focusing technology policy, Colombo, Sri Lanka.
JAN 2013 – JAN 2019	Research Fellow, LIRNEasia , Colombo, Sri Lanka.
JUNE 2011 – JUNE 2016	Assistant Professor , Department of Computer Science and Engineering, University of Dhaka, Dhaka, Bangladesh.
AUG 2009 – SEP 2014	Research Assistant , Department of Engineering and Public Policy, Carnegie Mellon University, Pittsburgh, PA., U.S.A.
AUG 2009 – SEP 2014	Researcher , Department of Engineering and Public Policy, Instituto Superior Técnico (IST), Lisbon, Portugal.
18 MAR 2007 – 6 JUNE 2011	Lecturer , Department of Computer Science and Engineering, University of Dhaka, Dhaka, Bangladesh.
1 SEP 2004 – 17 FEB 2007	Senior-Lecturer , Department of Computer Science and Engineering, BRAC University, Dhaka, Bangladesh.

HONORARY AND VOLUNTARY POSITIONS

DEC 2023 – PRESENT	Trustee, The Liberation War Museum, Bangladesh.
2020 – PRESENT	Chairperson, Artist Qayyum Chowdhury Memorial Trust.
2020 – PRESENT	Member, National Committee for Broadband Policy, Bangladesh Telecom Regulatory Council, Bangladesh.
MAY 2021 – DEC 2022	Expert Member, Research team, on setting price of spectrum for Indonesia, Kominfo, Govt. of Indonesia and University of Indonesia.
2016 – PRESENT	Member, Expert Committee, Enhancement of Bangla Language for Information and Communication Technology (EBLICT) Bangladesh Computer Council, ICT division, Government of Bangladesh, Bangladesh.
JUNE 2017 – JUNE 2022	Member, International Federation for Cloud Computing and Big Data (IFCCBD), Chinese Institute of Electronics.

EDITORIAL AND REVIEW DUTIES FOR INTERNATIONAL ACADEMIC JOURNALS

JAN 2021 – PRESENT	Editorial Board Member Telecommunications Policy Journal, Elsevier.
JAN 2013 – DEC 2020	Reviewer, Telecommunications Policy Journal, Elsevier.

INTERNATIONAL SCIENTIFIC COMMUNITY MEMBERSHIP

ASSOCIATION FOR COMPUTING MACHINERY:	Member, Association for Computing Machinery (ACM) The world's largest educational and scientific computing society.
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GRADUATE AND UNDERGRADUATE COURSES TAUGHT AND DESIGNED

Artificial Intelligence, Introduction to Bigdata analytics for statistics majors, Machine Learning, Human Computer Interaction, Introduction to Economics for the Engineers, Machine Learning for Public Policy, Data Science for Sustainable Development, Artificial Intelligence and Ethics of Technology design, Telecommunications Technology Policy for the Data Age, Neural Networks, Mathematics for Computer Science, Discrete Mathematics, Science Technology and Society, Machine Learning for Cyber Security, Operating systems, Computer Networks, Theory of Computing, Programming in Java, Programming in C, Introduction to computer science.

PROFESSIONAL TEACHING AND CONDUCTING WORKSHOPS

2023 – 2024	Expert Trainer, Training course on AI for Egyptian Lawmakers Bureaucrats, November 2023, December 2023, May 2024, National Institute for Governance and Sustainable Development (NIGSD); UNU-EGOV, Guimaraes, Portugal.
2023	Expert Trainer Training course on AI for KSA officials, Saudi Arabia, Digital Government Authority (DGA), January 2023, March 2023, UNU-EGOV, Guimaraes, Portugal.
2023	Expert Trainer, Training course on AI for Qatar officials, Qatar, Qatar: Ministry of Communications and Information Technology (MCIT), May 2023, UNU-EGOV, Guimaraes, Portugal.
2023	Expert Trainer, Training course on AI for Egyptian Judges, October 2023, National Institute for Governance and Sustainable Development (NIGSD); UNU-EGOV, Guimaraes, Portugal.
2023	Expert Trainer, Training course on AI for Egyptian Bureaucrats, November 2023, National Institute for Governance and Sustainable Development (NIGSD); UNU-EGOV, Guimaraes, Portugal.
2018	Lead Trainer at workshop, “Putting price on Spectrum Bands”, at Ministry of Communications and Information Technologies, KOMINFO, Indonesia, Venue: Bogor, 26–28 September 2018.
2016	Lead Trainer, BIG Data and Business analytics, Artificial Intelligence, Meta Heuristics for Mid and High-level management officials of the software industry of Bangladesh. This Advanced Certificate for Management Professionals (ACMP) course was organized by Ernst &Young and Institute of Business Administration (IBA) of University of Dhaka, IIM Ahmedabad, IIM Delhi. December 2016.
2013	Lead Trainer, Spectrum Management for Broadband, LIRNEasia organized Broadband policy course for professionals, Bangalore, India http://lirneasia.net/capacity-building/ford-broadband-policy-course/broadband-policy-course-bangalore-2013/ , March 2013.

CURRICULUM DEVELOPMENT

2015 – 2024	Member, Curricula Design Committee, Graduate and Undergraduate Studies, Department of Computer Science and Engineering, University of Dhaka. <ul style="list-style-type: none">Developed and revised core and elective courses, incorporating modern trends in AI, data science, machine learning, and technology policy.
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	<ul style="list-style-type: none"> Led integration of interdisciplinary modules such as Introduction to Economics for Engineers and AI and Ethics.
2018	Curriculum Design, Professional Data Science Courses, Department of Computer Science and Engineering, University of Dhaka, 2018 <ul style="list-style-type: none"> Designed professional data science courses tailored for industry and government, with a focus on AI for public policy, machine learning, and big data analytics.
2023	Contributor, Curriculum Review for the Institute of Applied Statistics (2023), University of Dhaka <ul style="list-style-type: none"> Assisted in revising the curriculum to include data science and AI-related courses, aligning with global academic and industry standards.
2023	Advisor, Curriculum Design committee of newly established AI and Data Science department of Green University of Bangladesh, 2023
2024	Advising Reitaku University (Tokyo) to develop interdisciplinary courses on AI for Good and data governance, 2024

GRANTS AND PROJECTS

AI CAPACITY BUILDING	<p>AI for Social Security (July 2022-July 2024) , Under this project, in collaboration with International Social Security Agency (ISSA) , I lead a two year long capacity building program that hosted 5 webinars on AI related issues with international experts that had on average 200 participants around the world, A guide line for AI use at social security agencies that was endorsed by the technical committee of ISSA and finally A comprehensive report on use of AI in Social security focusing more than 150 social security agencies around the world.</p> <p>News: https://unu.edu/egov/news/new-report-role-ai-social-security#:~:text=The%20report%20highlights%20significant%20strides.a%20broader%20data%2Ddriven%20strategy</p> <p>Download: https://unu.edu/sites/default/files/2024-06/2-AI%20in%20SecSoc%202024.pdf</p> <p>GIZ/GFA project on use of AI and ML for sustainable development (June 2022-March 2024) The project aims at design, analyses, knowledge dissemination and risk assessment for AI and ML projects in Asia, Africa and Latin America.</p>
DEEP LEARNING, SATELLITE IMAGE DATA, AND GIS FOR URBAN DEVELOPMENT	<p>Understanding the urban space for better governance: use of nontraditional data for real time disaggregated decision making (February 2020-May 2024) (UNU-EGOV fund and the Japan Science and Technology Agency, 20,000 USD)</p>
AI AND DATA DRIVEN DIGITAL TRANSFORMATION	<p>Digital Transformation of Chinese Social Security agencies (September 2021- May 2022) Project aims in delivering knowledge related to digital transformation of agencies and contextualizing the learning in Chinese perspective.</p> <p>Digital Transformation within security forces for extensive urban areas (December 2021-May 2022) Argentina Telecom funded Project conducts research on transitioning from</p>

narrowband to broadband communication for security agencies of Buenos Aires, Argentina, Grant worth 15,000 USD

DATA SCIENCE, CURATION, COMPOSITE INDICATOR BUILDING, VISUALIZATION FOR POLICY	Scrutiny of BRAC Int's data set on poverty, education and healthcare. (September 2018-January 2019), Grant worth 20,000 USD Building composite ID for BRAC Bangladesh's beneficiaries (February 2019- December 2019), Grant worth 20,000 USD Data curation to map health, education, poverty and disaster challenge of the residents of Bangladesh (January 2020-January 2021), Grant worth 20,000 USD
AI FOR IN EDUCATION	Bangladesh University Grants Commission's one-year long grant to conduct research on Intelligent Education Technology for after school learning. Grant worth 2,000 USD (May 2018-May 2019). Bangladesh University Grants Commission's one-year long grant to conduct research on the impact and usability of digital content at the Primary and Secondary schools of Bangladesh. Grant worth 2,000 BDT (May 2016-May 2017).
TRANSPORTATION NETWORK ANALYSIS	Complex Network Analysis on River Transport system of Bangladesh-ICT Ministry Grant (December 2018-December 2019) Grant Worth 20,000 USD
DATA DRIVEN DECISION-MAKING FOR POWER AND ENERGY	Dhaka Power Distribution Company, Research Grant for Designing and Developing Bangla Conversational Agent for Power Supply Grant Worth 5,000 USD (December 2023- July 2024) Bangladesh Energy Policy Research Council research grant, Understanding quality of electricity supply at Industrial hub Grant worth 130,000 USD (July 2022- Dec 2024). UNU EGOV project (ID: 16354) Understanding the urban space for better governance: use of nontraditional data for real time disaggregated decision making (February 2020-May 2021) Dhaka Power Distribution Company, research grant to understand impact of pre-paid metering on consumption behavior, Grant Worth 5,000 USD (December 2018- July 2019) IDRC, Canada research fund under project (facilitated by LIRNEasia, Sri Lanka) "Leveraging mobile network big data for developmental policy" (Project 108008-001), Big Data research for public policy and Data science for energy research (January 2017- January 2018). The project for one year is worth around 100,000 USD.
ICT FOR DISASTER	ICT research fund from Information and Communication technology ministry of govt. of Bangladesh for research entitled "Detection and severity measurement of disaster from social media data", Grant worth 9,000 USD (June 2019- June 2020).

SELECTED RESEARCH PAPERS

Zaber, M., Rohman, I., Gunawan, K., Johanes, A., Cross-Border Data Flow: **A trilemma of mobility, monetization and privacy**, *TPRC 52*, September 20, 2024 Washington College of Law, American University in Washington, D.C, Available at SSRN: <https://ssrn.com/abstract=4918555> or <http://dx.doi.org/10.2139/ssrn.4918555>

Hossain, M., MM Rahman, M., Rumeen, S., Zaber, M., **Rethinking Smart Keyboard Layout to Aid Strong Password Creation**, *Journal of Computer Science and Information*, 17/1(2024), 97-108, <https://jiki.cs.ui.ac.id/index.php/jiki/article/view/1235>

- Al Amin, M., Hoque, M.J.A.M., Nazzum, Z., Sayed, M.A., Rume, S.T.A. and Zaber, M.I., 2023, December. Data **Quality Assessment of Substation Data in Bangladesh: Insights from Handwritten Data Digitization**. In 2023 10th IEEE International Conference on Power Systems (ICPS) (pp. 1-6). IEEE.
- Jordanoski, Z., Ramos, L., & Zaber, M. (2023). **Balancing privacy at the time of pandemic: global observation**. International Journal of Public Health Science (IJPHS), 12(3), 1232-1242. <http://doi.org/10.11591/ijphs.v12i3.21480>
- Tondro, M., Jahanbakht, M., Rabbani, S., & Zaber, M. (2022). **Does Immersion of ICT Focused Institutions Increase the Pace of Urban Development? A Provincial Case Study in Iran Using Data from the Ground and Above**. In 2022 IEEE Conference on Technologies for Sustainability (SusTech) (pp. 219-223). doi: 10.1109/SusTech53338.2022.9794195
- Khan, S., & Zaber, M. (2022, October 4-7). **Understanding the state of local level e-Governance responsiveness in India, Nepal and Bhutan**. Paper presented at ICEGOV2022, Guimaraes, Portugal.
- Adiwijaya, K., Rohman, I., & Zaber, M. (2022, September 7-8). **Do mobile applications give competitive advantage to small and medium enterprises? Lessons from Indonesia**. In Proceedings of the 50th Telecom Policy Research Conference (TPRC 50) 2022, George Mason University, Arlington VA, U.S.A. Retrieved from <http://www.tprcweb.com/tprc2022-past-sessions>
- Hikmaturokhman, A., Ramli, K., Suryanegara, M., Ratna, A. A. P., Rohman, I. K., & Zaber, M. (2022). **A Proposal for Formulating a Spectrum Usage Fee for 5G Private Networks in Indonesian Industrial Areas**. Informatics, 9(2), 44. <https://doi.org/10.3390/informatics9020044>
- Meem, F. N., Al Noman, R., Saha, P., Pervez, M. S., Rahman, I., Zaber, M., & Ahmed Rume, S. T. (2022). **A Practical Scheme to Improve Memorability of System-assigned Random Password**. Dhaka University Journal of Applied Science and Engineering, 7(1). January 2022, <https://jase.du.ac.bd/articles/show/171> , DOI: <https://doi.org/10.3329/dujase.v7i1.62884>
- Tanni, T., Taharat, T., Parvez, S., Tanveer, S., & Zaber, M. (2022). **Is my password strong enough? A study on user perception in the Developing world**. EAI Endorsed Transactions on Creative Technologies, 18(e4), 1-8. <https://doi.org/10.4108/eai.11-2-2022.173452>
- Rahman, A., Zaber, M., Cheng, Q., Nayem, A., Sarker, A., Paul, O., & Shibasaki, R. (2021). **Applying State-of-the-Art Deep-Learning Methods to Classify Urban Cities of the Developing World**. Sensors, 21(7469), 1-13. <https://doi.org/10.3390/s21227469>
- Zaber, M., Rohman, I., Rizky, F., Alfin, H., & Rabbani, S. (2021). **Institutional Challenges of Technological Change: What Can Indonesia Tell Us 10 Years After DSO Policy Was Initiated?** In Proceedings of the 48th Telecom Policy Research Conference (TPRC 48) 2020. George Mason University, Arlington VA, U.S.A. Retrieved from <https://tprc482020.sched.com/list/descriptions/>
- Cheng, Q., Rahman, A., Sarker, A., Nayem, A., Paul, O., Ali, A., ... & Zaber, M. (2021). **Deep learning coupled with novel classification method to classify the urban environment of the developing world**. In SIGML 2020. Proceedings of the 2nd International Conference on Signal Processing and Machine Learning (pp. 37-56). Zurich, Switzerland: Computer Science & Information Technology (CS & IT). <https://doi.org/10.5121/csit2021.110103>
- Cheng, Q., Zaber, M., Rahman, A. M., Zhang, H., Guo, Z., Okabe, A., & Shibasaki, R. (2022). **Understanding the Urban Environment from Satellite Images with New Classification Method—Focusing on Formality and Informality**. Sustainability, 14(4336), 1-18. <https://doi.org/10.3390/su14074336>
- Rizvee, R. A., & Zaber, M. (2021). How Newspapers Portrayed COVID-19. In A. Byrski, T. Czachórski, E. Gelenbe, K. Grochla, & Y. Murayama (Eds.), **Computer Science Protecting Human Society Against Epidemics**. ANTICOID 2021.

IFIP Advances in Information and Communication Technology, Vol. 616. Springer, Cham.
https://doi.org/10.1007/978-3-030-86582-5_5

Zaman, A., Rabbani, S. B., Haque, R. R., & Zaber, M. (2021). **Seasonal, Temporal and Spatial Variation of Particulate Matter Concentration in Bangladesh: A Longitudinal Analysis**. In 2021 IEEE Region 10 Symposium (TENSYP) (pp. 1–8). <https://doi.org/10.1109/TENSYP52854.2021.9550877>

Meem, F., Noman, R., Shaha, P., Pervez, M., Rahman, I., Zaber, M., & Rumeen, S. (2022, January). **A Practical Scheme to Improve Memorability of System Assigned Random Password**. Dhaka University Journal of Applied Science and Engineering (DUJASE), 7(1), 29–37. <https://doi.org/10.3329/dujase.v7i1.62884>

Zaber, M. (2020). **Monitoring Energy Landscape of Bangladesh: A longitudinal analysis of electricity consumption and usage behavior at the demand side**. In *Towards a Sustainable Energy Future: Mujib Year Special Publication*. SREDA (Sustainable and Renewable Energy Development Authority), Government of Bangladesh. (Book Chapter). ISBN: 978-984-34-9461-0.

Zaber, M., Rohman, I., Rizky, F., Alfin, H., & Rabbani, S. (2021). **Institutional Challenges of Technological Change: What Can Indonesia Tell Us 10 Years After DSO Policy Was Initiated?** In Proceedings of the 48th Telecom Policy Research Conference (TPRC) 2020. George Mason University, Arlington VA, U.S.A. Retrieved from <https://tprc482020.sched.com/list/descriptions/>

Niloy, A., Arif, M., Nayem, A., Sarker, A., Paul, O., Amin, M., Ali, A., Zaber, M., & Rahman, A. (2021). **A Novel Disaster Image Dataset and Characteristics Analysis using Attention Model**. In 2020 25th International Conference on Pattern Recognition (ICPR) (pp. 6116–6122). <https://doi.org/10.1109/ICPR48806.2021.9412504>

Sayed, A., Zaber, M. (2020). **Just-in-Time Educational Aid to Deliver Instant Help for Students in Developing Countries. Recent Trends in Information Technology and its Application, Volume 3(3)**. HBPR Publications. Retrieved from <http://doi.org/10.5281/zenodo.4304291>

Khan, S., & Zaber, M. (2020). **Understanding Responsiveness of E-governance Platforms of Bangladesh**. In Proceedings of the 13th International Conference on Theory and Practice of Electronic Governance (ICEGOV2020), 23–25/09/2020, Athens, Greece. New York: ACM Press.

Tabassum, F., Islam, H., Ali, A. A., & Zaber, M. (2020). **A Complex Network Analysis of Inland Waterways Port Connectivity of Bangladesh**. In IEEE Region 10 Symposium (TENSYP), Dhaka, June 2020. <https://doi.org/10.1109/TENSYP50017.2020.9230896>

Wahed, M., Rizvee, R. A., Haque, R. R., Ali, A. M., Zaber, M., & Ali, A. A. (2020). **What Can Nighttime Lights Tell Us about Bangladesh?** In IEEE Region 10 Symposium (TENSYP), Dhaka, June 2020. <https://doi.org/10.1109/TENSYP50017.2020.9230806>

Rabbani, S. B., Ali, A. A., & Zaber, M. (2020). **Does Electric Prepaid Meters Decrease Payment Delinquency? Evidence from Data Centric Analysis of Electricity Consumption in Dhaka, Bangladesh**. In IEEE Region 10 Symposium (TENSYP), Dhaka, June 2020. <https://doi.org/10.1109/TENSYP50017.2020.9230814>

Rahman, M. M., Shuvo, M. M. M., Zaber, M. I., & Ali, A. A. (2018). **Understanding Real-Time Traffic Characteristics of Urban Zones Using GPS Data: A Computational Study on Dhaka City**. ICIEV, June 25–28, 2018, Fukuoka, Japan.

Rahman, M. M., Shuvo, M. M. M., Zaber, M. I., & Ali, A. A. (2018). **Traffic Pattern Analysis from GPS Data: A Case Study of Dhaka City**. 2018 IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT), March 16–17, 2018, Bangalore, India. <https://doi.org/10.1109/CONECCT.2018.8482371>

Sayed, A., Zaber, M., Ali, A., & Mosharaf, P. (2017). **Enumerating the obstacles of accelerating use of digital classroom: Lessons from Bangladesh**. cprSouth 2017, Communication Policy Research South 2017, October 29 – November 2, 2017, Yangon, Myanmar.

Garcia-Murillo, M., Zaber, M., & Wohlers de Almeida, M. (2017). **Information and Communication Technologies as Drivers of Social Unrest, Book chapter in Online Communities as Agents of Change and Social Movements**. In S. Gordon (Ed.), ISBN13:9781522524953 (Book Chapter), March 2017.

Islam, S., Ali, A. A., & Zaber, M. A. (2017). **Smart Grid Prerequisite: Survey on Electricity Demand Forecasting Models and Scope Analysis of Demand Forecasting in Bangladesh**. In (Best Paper Award) The Fifth IEEE Region 10 (Asia Pacific) Humanitarian Technology Conference (R10HTC) 2017, December 21-23, 2017, Dhaka, Bangladesh. (Best Paper Award). <https://doi.org/10.1109/R10-HTC.2017.8289052>

Sayed, M. A., Rahman, M. M., Zaber, M. I., & Ali, A. A. (2017). **Understanding Dhaka City Traffic Intensity and Traffic Expansion Using Gravity Model**. In 20th International Conference of Computer and Information Technology (ICCIIT), December 22-24, 2017, Dhaka, Bangladesh.

Zaber, M., Lindmark, S., & Bohlin, E. (2017). **What is the impact of Broadband Bandwidth Variability on Quality of Life? - Lessons from Sweden**. In TPRC 45 (Telecommunications Policy Research Conference) 2017, September 1-2, 2017, George Mason University, Arlington VA, U.S.A.

Chaki, D., Zaber, M., & Ali, A. A. (2017). **Understanding Complex Social Network of Government Officials in Decision Making**. In cprSouth 2017, Communication Policy Research South 2017, October 29 - November 2, 2017, Yangon, Myanmar.

Sayeed, A., & Zaber, M. (2016). **A novel use of ICT to deliver just-in-time educational aid to help better learning for the school students in developing countries**. In cprSouth 2016, September 8-10, 2016, Zanzibar.

Rakib, N., Sobhan, M., Farhan, S., & Zaber, M. (2016). **Automatic classification of music based on the correlation between mood, linguistic and audio features**. Bangladesh Journal of Scientific and Industrial Research, 51(1), 1-4.

Chaki, D., Das, A., & Zaber, M. (2015). **A comparison of three discrete methods for classification of heart disease data**. Bangladesh Journal of Scientific and Industrial Research, 50(4), 293-296.

Zaber, M., & Sirbu, M. (2012). **Impact of spectrum management policy on the penetration of 3G technology**. Telecommunications Policy, 36(9), 762-782. <https://doi.org/10.1016/j.telpol.2012.06.012>

Zaber, M. (2014). **Influence of institutional structure on the dynamics of regulatory choices and the impact of these choices on the telecommunication marketplace in transition** (Ph.D. dissertation). Committee Members: M. Sirbu, J. Peha, W. Lehr, M. Catalão, J. R. Figueira.

Zaber, M. (2013). **The impact of bureaucratic structures of the regulatory authorities on diffusion of telecommunication technology: A cross-national analysis of the regulatory governance and its impact on VoIP regulation**. In 41st TPRC (Telecommunications Policy Research Conference), September 27-29, 2013, George Mason University, Arlington VA, U.S.A.

Zaber, M., & Sirbu, M. (2011). **A cross-national analysis of the effect of spectrum management policy on the deployment of 3G technology**. In 39th TPRC (Telecommunications Policy Research Conference), September 24, 2011, George Mason University, Arlington VA, U.S.A.

Babu, H., Iqbal, T., Ahmed, C., Hasan, R., & Zaber, M. (2006). **An Optimal Design Method of a Multi-Valued PLA**. Dhaka University Journal of Science, 54(2), 1-4.

Babu, H., Muhammad, N., Malakar, S., & Zaber, M. (2007). **Enhancement of An AND-EXOR PLA with multi-input decoder**. Dhaka University Journal of Science, 55(1), 5-8.

Zaber, M., & Babu, H. (2006). **A new Approach for Minimization of Multiple Valued Input Binary Valued Output Functions using Local Cover Technique**. WSEAS Transactions on Computers, 5(10), 2183-2189.

Zaber, M., & Rahman, C. (2006). 'BREN'- A secured network for the federated universities and research facilities of Bangladesh. In Proceedings of 9th International Conference on Computer and Information Technology, ICCIT 2006, December 21-23, 2006, Independent University, Bangladesh.

Zaber, M., Babu, H., & Rahman, M. (2004). On the minimization of Multiple Valued Input Binary Valued Output Functions. In Proceedings of the 34th International Symposium on Multiple –Valued Logic (ISMVL 2004), Toronto University, Toronto, Canada.

Zaber, M., Babu, H., & Rahman, M. (2004). Implementation of Multiple Valued Flip Flops using Pass Transistor Logic. In Proceedings of the DSD 2004, Euromicro Symposium on Digital System Design, August 31 – September 3, 2004, Rennes, France.

INVITED TALKS, KEYNOTES, PANELS, ORGANIZING EVENTS

Keynote Speech (2024), A guideline for using AI by the social security agencies, 17th (International Social Security Agency) ISSA International Conference on Information and Communication Technology in Social Security, Geneva, Switzerland, 12 July 2024, <https://www.issa.int/events/ict2024/programme>

Panel Discussant (2024), AI for good: Strategies for responsible and transparent development, at a panel titled Integrating AI with complex systems modeling to achieve the SDGs, UNU Macao AI conference 2024, 24-25 April, Macao SAR, China, <https://aimacau-2024.org/programme/>

Keynote Speech (2024), Artificial Intelligence: A game-changer for reaching social security objectives, 17th (International Social Security Agency) ISSA International Conference on Information and Communication Technology in Social Security, Bali, Indonesia, 6-8 March 2024, <https://www.issa.int/events/ict2024/programme>

Invited Talk (2024) Should we blame Artificial Intelligence? An introductory discussion on AI and Accountability, Center for Advanced Legal Studies (CALS), University of Dhaka, Bangladesh, 27 February, 2024., <https://www.thedailystar.net/law-our-rights/news/cals-faculty-law-university-dhaka-organises-seminar-artificial-intelligence-3560861>

Invited Talk (2024), An introduction to Explainable AI and its importance in Public Policy, United Nations University Artificial Intelligence Network webinar's inaugural talk, February 2024

Invited talk (2024), Decoding Artificial Intelligence-Unveiling the secrets of Explainability, ISSA webinar on AI (2023), January 18, 2024, <https://www.issa.int/events/webinar-2024-01-18>

Speaker, AI and Startup future, Bangladesh startup summit, 2023, Panel Discussion with the Government, Start up and Infrastructure industry leaders Dhaka, Bangladesh, July 29-30, 2023

Fireside Chat, With Jann Talinn, Inventor of Skype, On AI and our future, Bangladesh startup summit, 2023, Dhaka, Bangladesh, July 29-30, 2023

Invited talk, A Day-long workshop on Data: Materialities, Infrastructures, Critiques, Cambridge Digital Humanities, University of Cambridge, Cambridge, UK, July 3, 2023, <https://www.cdh.cam.ac.uk/events/36108/#programme>

Invited talk, Samos Summit on ICT enabled Governance, Samos, Greece, 26-28 June, 2023, <https://egov.unu.edu/news/news/samos-summit-2023.html>

Panel discussant, on AI and Governance, "Moldova Digital Summit: Towards our borderless future ", Chisinau, Moldova, June 15-17, 2023 https://www.linkedin.com/posts/atic_moinul-zaber-cercet%C4%83tor-academic-senior-activity-7084167642336366595-6qna?utm_source=share&utm_medium=member_desktop

Keynote speech (2023). Data, AI and the challenges of regulatory governance, Bangladesh Telecommunication Regulatory Council (BTRC), May 19, 2023

Lecture on AI for public policy, Digital Government Authority of the Kingdom of Saudi Arabia, May 2-5, 2023, Guimaraes, Portugal.

Invited talk (2023), Deconstructing Chatbots, ISSA webinar on AI (2023), April 20, 2023

Invited Talk (2023), "Covering the last 50%-the role of 5G spectrum policy intervention", Pacific Telecommunications Council, Honolulu, Hawaii, 19th January 2023.

Invited talk (2022), Economic impact of AI, Invited talk at University of Indonesia, December 22, 2022

Guest Speaker (2022), "Leveraging AI for social security: Prospects and Practices". ISSA webinar on Artificial intelligence in social security, 29 November 2022.

Keynote speech (2022), "Artificial Intelligence in social security", 16th ISSA International conference on Information and communication technology in Social Security, ICT2022, Tallinn, Estonia, 4-6 May, 2022 <https://www.issa.int/events/ICT2022>

Invited talk, (2021), "Big Data and AI for smart cities in Developing world, Theme: Local Africa goes Digital & Smart, 5th African Forum of Territorial Managers and Training Institutes, 6-11th December, 2021, Marrakech, Kingdom of Morocco.

Invited talk titled, (2021) "Prospects of Computational Social Science for policy making in the developing world", at the summer institutes in computational social science (SICS) at NOVA school of Business, Lisbon, Portugal, June 14-25, 2021. <https://sicss.io/2021/lisbon/>

Invited talk titled, (2021) "The prospect of Non-Traditional Data and Computational Science for Sustainable Development", at World Federation of Engineering Organizations (WEFOO-CIET), <http://www.wfeo.org/wfeo-ceit-online-open-courses-episode-2-the-prospect-of-non-traditional-data-and-computational-science-for-sustainable-development/>

Invited talk (2021), at Pacific Telecommunications Council (PTC) , Honolulu, Hawaii , "What did the regulators do to cope up with the accelerating demand for digital services ? : A cross-country analysis on regulatory challenges at the time of pandemic", January 17-19, 2021. [https://council.ptc.org/PTC/PTC21/online-program/Function_Display.aspx?EventKey=PTC21PROG&FunctionKey=RWS_17_2]

Invited talk, ISSA (International Social Security Association) Webinar - ISSA European Network Webinar: Artificial intelligence for social security institutions 22 September 2020 (<https://www.issa.int/webinar-2020-09-22>)

Keynote speech, Ministry of Power, Energy and Mineral Resources, on Big Data and Electricity management, the event was presided over by the Honorable Energy Advisor to The Prime Minister of the Government of Bangladesh, 7th July 2020

Invited talk on "Electronic ID- perspectives for Indonesia", Lead Lecturer at workshop at Ministry of Communications and Information Technologies, Indonesia, Venue: Bali, 11-13 November 2019

Invited talk on "Data and Design for public policy", at International Cooperation Conference on Net Generation Information Technology", Jinan, China, 27-28 September 2019

Panel Discussant, on "World Coordination of 5G - What are the European Stakes at the Upcoming WRC-19?", at Pacific Telecommunications Council (PTC), Honolulu, Hawaii 20-23 January, 2019

Invited talk on "Social Implications of AI in the developing countries", at 36th National IT conference, 2018, , 2018, Colombo, Sri Lanka, 2-4 October , <http://www.nitc.lk/2018/>

Invited talk on “Immerging technologies and regulatory readiness”, at the Department of Economics, University of Indonesia, 29th September 2018

Invited talk on “Using Data for Public Policy in Bangladesh: notes on its importance and challenges”, at One Belt One Road Federation of Chinese Institute of Electronics, forum, 2nd World Intelligence Congress (WIC 2018), Tianjin, China, 16-19 May, 2018.

Invited talk on “Immerging technologies and regulatory readiness”, at the Department of Economics, University of Indonesia, 29th September 2018

Invited talk on “Using Data for Public Policy in Bangladesh: notes on its importance and challenges”, at One Belt One Road Federation of Chinese Institute of Electronics, forum, 2nd World Intelligence Congress (WIC 2018), Tianjin, China, 16-19 May, 2018.

“Spectrum policy and telecom industry dynamics”, Guest lecture at Policy on Spectrum Re-farming, UNU-EGOV, rua de Vila Flor 166 4800-445 Guimarães Portugal, December 18-19, 2017.

“Data driven e-governance in Bangladesh: notes on its evolution and challenges”, at UN ESCAP expert group meeting on Data-Driven Smart Government, Manila, Philippines, 6-7 December, 2017

“Spectrum Policy and Management”, Guest Lecture at “Information and Communication Technologies (ICTs) – Policy, Strategy and Experiences from Across the Globe” United Nations University, UNU-EGOV, rua de Vila Flor 166 4800-445 Guimarães Portugal, November 6-10, 2017

Invited talk on “Big Data for development focusing the developing world”, at International Federation for Cloud Computing and Big Data (IFCCBD): Belt and Road forum of Chinese Institute of Electronics, at 9th China cloud computing conference, Beijing, China, 13-16 June, 2017

Invited Talk, The Influence of Institutional Structure on Regulatory Choices and the Impact of these Choices on the Telecommunications Marketplace, United Nations University, UNU-EGOV, Rua de Vila Flor 166 4800-445 Guimarães Portugal, March 31, 2017

Invited Talk, Big Data for Policy good, Women in Engineering University of Dhaka Chapter, October 15, 2016.

Invited Talk, Harnessing electricity consumption data for public good, access to information (a2i) Prime Ministers’ Office, Dhaka, Bangladesh, September 10, 2016

WHITEPAPERS, POLICY BRIEFS, OP-EDS AND OTHER PUBLICATIONS

Zaber. M., Casu.O., Brodershon. E., AI for Social Security, A comprehensive report on AI in Social Security Agencies, ISSA June, 2024, <https://www.issa.int/node/259895>

Zaber, M., The promises of data centric digital transformation in the age of artificial intelligence, Data production and ecosystem, Internet Sectorial Overview, The regional center for studies on the development of the Information Society, CETIC Brazil, March 2023 Issue 1, Vol: 15, <https://cetic.br/media/docs/publicacoes/6/20230522115244/year-xv-n-1-data-production-and-ecosystem.pdf>.

Zaber., M et al., “Cross border data flow: A trilemma of mobility, monetization and privacy”, G20 Insights, Published in G20 conference held at Bali, Indonesia, November 2022. https://www.g20-insights.org/policy_briefs/cross-border-data-flow-a-trilemma-of-mobility-monetization-and-privacy-2/

Rohman, I, Zaber. M., can inflation be better measured with big data? April 19, 2022, <https://www.straitstimes.com/asia/se-asia/can-inflation-be-better-measured-with-big-data-jakarta-post-contributors>

Rohman, I, Zaber. M., can inflation be better measured with big data? The Jakarta Post, Indonesia, April 17, 2022, <https://www.thejakartapost.com/opinion/2022/04/17/can-inflation-be-better-measured-with-big-data.html>.

Zaber, M., How the arts can help make AI better, March 13, 2022, <https://www.thedailystar.net/views/opinion/news/how-the-arts-can-help-make-ai-better-2981426>

Man and Machine, a monthly column on Technology and Public policy at The Daily Star, <https://www.thedailystar.net/author/moinul-zaber>

Rohman, I, Zaber. M., NFT bubble: How long will it last?, The Jakarta Post, January 20, 2022, <https://www.thejakartapost.com/opinion/2022/01/20/nft-bubble-how-long-will-it-last.html>

Zaber, M., Time to adapt AI, The Daily Star, January 9, 2021, <https://www.thedailystar.net/views/opinion/news/time-adapt-ai-2935166>

Zaber, M., How can we start the open data revolution, The Daily Star, January 9, 2021, <https://www.thedailystar.net/views/opinion/news/how-can-we-start-the-open-data-revolution-2909206>

Zaber, M., What are the priorities of BTRC during the pandemic, The Daily Star, May 1, 2021, <https://www.thedailystar.net/opinion/news/what-are-the-priorities-the-btrc-during-the-pandemic-2086505>

Zaber, M., BTRC's independence is the key to innovative telecom marketplace, The Daily Star, November 20, 2021, <https://www.thedailystar.net/views/opinion/news/btrcs-independence-key-innovative-telecom-marketplace-2234031>

Zaber, M., Do we care about digital privacy? The Daily Star, July 17, 2021, <https://www.thedailystar.net/views/opinion/news/do-we-care-about-digital-privacy-2131796>

Zaber, M., A spectacular spectrum auction vs. a thriving telecommunications marketplace, The Daily Star, March 27, 2021, <https://www.thedailystar.net/opinion/news/spectacular-spectrum-auction-vs-thriving-telecommunications-marketplace-2067309>

Zaber, M., Faceoff with Facebook: What have the regulators learned? The Daily Star, March 6, 2021, <https://www.thedailystar.net/opinion/news/faceoff-facebook-what-have-the-regulators-learned-2055585>

Zaber, M., Jumpstart with AI: What should be our first step? The Daily Star, February 6, 2021, <https://www.thedailystar.net/opinion/news/man-and-machine-2039861>

Zaber, M., Raul Ruggia-Frick, ISSA (International Social Security Association), Artificial Intelligence in Social Security: Background and Experiences, 28 October, 2020, <https://www.issa.int/news/artificial-intelligence-social-security-background-and-experiences>

Zaber, M., Raul Ruggia-Frick, ISSA (International Social Security Association), Artificial Intelligence in Social Security: Background and Experiences, Digital World 2020, ICT Division, Bangladesh Computer Council <http://www.digitalworld.org.bd/about-dw2020>

Ali. A, & Zaber, M. Policies without proper data are doomed to fail. The Daily Star, July 22, 2020, <https://www.thedailystar.net/opinion/news/policies-without-proper-data-are-doomed-fail-1934053>

Rohman, I., Hasib Ahsan & Zaber, M., Lockdown vs. social distancing: need for effective communication, The Jakarta Post, 19 May 2020, <https://www.thejakartapost.com/academia/2020/05/19/lockdown-vs-social-distancing-need-for-effective-communication.html>

Rohman, I., & Zaber, M., Decision Makers need to get the priorities right, The Jakarta Post, 20 April, 2020, <https://www.thejakartapost.com/news/2020/04/20/covid-19-decision-makers-need-get-priorities-right.html>

Gonzalves, D., & Zaber, M., Fight with 'fire; or brace for 'tide': the strategy for flattening the curve lies in the art of Judo, 21 April, 2020, <https://egov.unu.edu/news/news/op-ed-flattening-the-curve-covid19.html>

Rohman, I., & Zaber, M., Indonesian broadcasters: Have they given up? The Jakarta Post, 22 August, 2019, <https://www.thejakartapost.com/academia/2019/08/22/indonesian-broadcasters-have-they-given-up.html>

(Moinul Zaber) "Spectrum management in the age of mobile broadband", (side bar 5), Indonesia: Connecting Diversity, Elizabeth Fife (editor), Pacific Telecommunications Council Broadband reports number 3, (2015)

SYNERGISTIC ACTIVITIES

Program Committee Member, 15th International Conference, on Theory and Practice of Electronic Governance, ICEGOV, 2024, <https://www.icegov.org/people/moinul-zaber/>

Member of Organizing Committee, (International Social Security Agency) ISSA-(E-gov Operating Unit of United Nations University), UNU-EGOV webinar series on AI for social security, September 2022- till date

Program Committee Member, 14th International Conference, on Theory and Practice of Electronic Governance, ICEGOV, 2023, <http://www.icegov.org/committees/programme/>

Member of the National Taskforce for National Broadband Policy of Bangladesh, February 2022- till date

Program Committee Member, 13th International Conference, on Theory and Practice of Electronic Governance, ICEGOV, 2021, <http://www.icegov.org/committees/programme/>

Program Committee Member, 12th International Conference, on Theory and Practice of Electronic Governance, ICEGOV, 2021, <http://www.icegov.org/committees/programme/>

Program Committee Member, 11th International Conference, on Theory and Practice of Electronic Governance, ICEGOV, 2020, <http://www.icegov.org/committees/programme/>

Program Committee Member, 2nd International Conference on sustainable technologies for Industry 4.0 (STI 2020), December 19-20, 2020

Program Committee Member, 11th International Conference, on Theory and Practice of Electronic Governance, ICEGOV, 2019, <http://www.icegov.org/committees/programme/>

Program Committee Member, 1st International Conference on Bangla Speech and Language Processing, ICBSLP, Syllhet, Bangladesh, 21-22 September 2018

Consultant, Establishing Big Data analytical capabilities for BRAC, Dhaka Bangladesh July 2018-November 2018

Program Committee Member, (International Conference on Software engineering) CONSEG 2018, India, October 4-6, 2018.

Program Committee Member, 11th International Conference, on Theory and Practice of Electronic Governance, ICEGOV, 2018, <http://www.icegov.org/committees/programme/>

Committee Member, Developing PMS (personal management system) for Bangladesh Police, (January-March 2016)

Spectrum Management for Myanmar, authored the techno-policy response as a critic to the Govt. of Myanmar's national Spectrum Policy, February 2016.

Efficient Spectrum Management for Myanmar, wrote the piece on efficient spectrum management on behalf of LIRNEasia to comment on Myanmar's public consultation for rules of Telecom, Nov, 2013.

Taught Spectrum Management for Broadband at LIRNEasia organized Broadband policy course for professionals <http://lirneasia.net/capacity-building/ford-broadband-policy-course/broadband-policy-course-bangalore-2013/>, March, 2013.

Project Manager, Emergency Messaging with Social Media, Department of Engineering and Public Policy, Carnegie Mellon University. Spring 2012.

ACTIVITIES RELATED TO ART, ART APPRECIATION AND OTHER GROUP ACTIVITIES

1st AI Art Exhibition, May 2024, Facialscape, the very first AI and Data Art exhibition in Bangladesh, Hosted by Faculty of Fine Art University of Dhaka Bangladesh <https://www.dndlab.org/projects/ai-art-exhibition-2024/>

Freelance Photographer, Art critic and Artist since 2002. Periodically exhibit Art and Photography at various international events, several pieces on art and artists from the South Asia have been published in many Art and Culture journals and magazines. Contributor of art related scholarly articles at Literary Magazines Bhan (Kolkata, India) Kali o Kolom (Dhaka, Bangladesh) Art Magazine Shilpo o Shilpi (Dhaka, Bangladesh). As a freelance graphic designer designed several posters, book covers, cards for private and public use catering to international and national clients. Received 1st prizes in Human and Nature categories, CIT Photography Contest, Carnegie Mellon University 2011

Was a part of the 10th Place securing team (3 members), 26th ACM International Collegiate Programming Contest (Asia Regional 2001), November 10, 2001

LANGUAGES

LANGUAGE	READING	SPEAKING	WRITING
Bangla	C2	C2	C2
English	C2	C2	C2
Hindi	A2	A2	A1
Portuguese	A2	A2	A2
French	B2	B2	B2