March 6, 2019

Dr. Khan R. Rahaman
Postdoctoral Fellow, Future Energy Systems (FES) Project, School of Urban and Regional Planning, 3-107, Tory Building, University of Alberta, Edmonton, AB, Canada T6G 2E3

To,
Dr. David Lieske, Chair of Geography and Environment. Mount Allison University
Avard-Dixon 309, 144 Main Street, Sackville, NB, Canada E4L 1A7

Re: Application for the McCain Postdoctoral Research Fellow opportunity.

Dear Chair of the Search Committee:

It is my pleasure to apply as a ***Canadian Citizen*** for the above mentioned fellowship program in your renowned institution as an incumbent applicant. My Curriculum Vitae shows my expertise, academic experience and research background, professional practice and knowledge of issues in climate change, environmental sciences, geosciences (e.g., geomatics), quantitative and qualitative knowledge of data analysis, risks and impact assessment techniques for communities, expertise in socio-economic issues, and strong organization skills (internationally) are a good match to serve as a postdoc fellow with major in environmental science. I come across this opportunity from Canadian Association of Geographer's email list on March 6, 2019 and immediately consider for my future career as a postdoc fellow to teach several subjects related to my interests. I will be relocating myself to serve this exciting position from Edmonton, AB to your institution in NB if the position comes to me. It is worthwhile to note that I have gathered extensive skills and research experience from both developed and developing countries with special emphasis on teaching relevant subjects mentioned in the advert. Besides, I have experiences living in Saint John, NB in 2009 summer and have visited Sackville, NB.

I am presently involved in conducting research as an urban planner/geographer in multidisciplinary research team at urban and regional planning department in the University of Alberta as a postdoctoral fellow. Very recently, I completed my PhD from the University of Calgary with an emphasis on climate change modeling in the province of Alberta. I completed another PhD in urban planning from the University of Tokyo in 2006 and won the Alexander von Humboldt Fellowship for my postdoc to work at KIT in 2009. In my M.Sc. dissertation, I focused on the built environment with a special emphasis on social and economic issues of informal settlement. In my MES dissertation, I compared contemporary urban planning approaches in the European Union and Canadian municipalities in the areas of climate change adaptation planning. In other research, I have worked in natural disaster management, coastal area vulnerability, urban sustainability challenges, qualitative and quantitative research approaches to social science research, and the application of GIS and remote sensing techniques to urban sustainability planning. In the near future, I am inclined to work on issues related to climate change modeling, environmental modeling, and application of GIS for quantifying environmental issues over the landscapes.

Besides it, I received intensive experience in international development related works while working as a consultant and researcher in several reputed international organizations including the World Bank, United Nations, Japan International Cooperation Agency (JICA), and Asian Development Bank (ADB). During these assignments, I had chances to visit several South-East Asian countries and had opportunities to collaborate with multiple stakeholders and institutions for development related works in different socio-economic conditions. I hope, my experience and skills would be an asset for your organization to serve as a researcher with specific focus on technology development, peoples' participation, environmental policy research and natural resources management with cutting edge knowledge and dexterity. My international exposure had enabled me to work in a multicultural and multidisciplinary groups. Besides, I recently completed a report on Forest Fire in Northern Alberta and submitted the report to National Fire Information Database (NFID) in December 2017 with an assessment of structural damages in Athabasca Oil Sands Region due to forest fire in 2016. I am also highly involved in one of the ongoing research projects of climate change and water stresses in Athabasca Oil Sands Region while employing remote sensing data.

For your kind consideration, I have enclosed Curriculum Vitae, and a cover letter with my teaching philosophy in order to work as a postdoc fellow at your institution. It would be my pleasure to provide you any additional materials that you may require. I appreciate your time and consideration and I look forward to discussing how I can contribute to your team as a postdoc researcher (teaching focus in environmental sciences) in near future to bring diversity in your team.

Sincerely yours,

Khan R. Rahaman, *PhD*

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I. PERSONAL INFORMATION

Citizenship: Canadian.

II. PROFESSIONAL RECORD

A. Academic Record

i) Undergraduate

B.Sc. Urban and Rural Planning, November/1998 (Urban environment focus)
Khulna University/Khulna 9208/Bangladesh

ii) Graduate

MSc. Spatial Planning, June/2002
Infrastructure Planning (Built environment focus)
Royal Institute of Technology/ Stockholm/ Sweden

PhD, March/2006
Urban Planning (Sustainability focus)
University of Tokyo/ Tokyo/ Japan

MES, October/2012
Environmental Studies (Climate change adaptation focus)
Wilfrid Laurier University/ Waterloo/ ON/ Canada

Ph.D. Candidate/ (April 2018 tentative completion)
Geomatics Engineering (Urban climate and adaptation focus)
University of Calgary/ AB/ Canada

iii) Research and/or other special training

Research Fellow/ 2009
University of Minho, Department of Civil Engineering (Urban Planning Focus)
Guimaraes/ Portugal

Research Fellow/ 2009 – 10
Karlsruhe Institute of Technology/ Institute of Regional Science (Disaster management)
Karlsruhe/ Germany

Research Proposal for International Grants: International Federation of Science (IFS), Stockholm, Sweden/ 2007

University Teaching and pedagogy development, Canadian Association of Geographers (CAG), University of Calgary 2011; Wilfrid Laurier University 2013

University Teaching and pedagogy development, Khulna University, Bangladesh 2006.

B. Academic Appointments (current first)

Research Associate, Department of Geomatics Engineering, University of Calgary, AB, Canada T2N 1N4 (September 2014 - ongoing)

- Responsibilities included, research and teaching assistant in the areas of Environmental data analysis, coupling science and social science for climate change modeling, application of remote sensing for local level planning.

Contract Academic Staff (CAS) – Lecturer, Department of Geography and Environmental Studies, Wilfrid Laurier University/ Brantford/ Canada (January 2011 – April 2014)

- Responsibilities include, teaching at undergraduate level courses (Geography and human environment focus).

Research Scientist (Consultant) – World Meteorological Organization (WMO), 7bis, avenue de la Paix, Case postale No. 2300, CH-1211 Geneva 2, Switzerland (September 2013 – December 2013)

- Responsibilities include, research report preparation for Coastal Inundation Forecasting Development Project (CIFDP)

Research Assistant, Department of Geography and Environmental Management/University of Waterloo/Canada, Climate change adaptation in Canadian Transportation sector project, 2013 (June 2013 – September2013).

- Responsibilities include, gathering literature related to project work and understanding the research gaps for funding applications.

Adjunct Lecturer, Department of Geography and Environmental Management/University of Waterloo/Canada, May 2011 to August 2013)

- Responsibilities include, teaching at undergraduate level courses (Geography and Human Environment focus).

Research Assistant – National Climate Change Adaptation Project, Wilfrid Laurier University, Waterloo/ Canada (September 2010 – July 2012)

- Responsibilities include, teaching assistant, conducting qualitative survey to local governments across Canada and the EU, analyzed data for presentation and scientific papers.

Research Assistant, Climate Change Impacts and Adaptation and the Canadian Transportation Sector, Led by Dr. Jean Andrey, Department of Geography and Environmental Studies, University of Waterloo, Ontario, Canada. (May 2013 to September 2013)

Postdoctoral Research Fellow – Department of Regional Science, Karlsruhe Institute of Technology, Karlsruhe/Germany (May, 2010 – September 2010)

- Responsibilities include, teaching at undergraduate and graduate level courses. Conducting field investigation in the research projects and prepares scientific manuscripts for international publications.

Postdoctoral Research Fellow – Department of Civil Engineering, University of Minho, Guimaraes/ Portugal (May 2009 – May 2010)

- Responsibilities include, teaching at undergraduate and graduate level courses. Conducting field investigation in the research projects and prepares scientific manuscripts for international publications. Collaborating meeting and workshop for research projects with international counterparts.

Assistant Professor – Urban and Rural Planning Discipline, Khulna University 9208, Bangladesh (October 2006 – May 2009)

- Responsibilities include, teaching at both undergraduate and graduate level courses, supervising graduate and undergraduate students, establishing collaborative research networks, services to the university community and outside.

Lecturer – Urban and Rural Planning Discipline, Khulna University 9208, Bangladesh (April 2002 – September 2006)

- Responsibilities include, teaching at both undergraduate and graduate level courses, supervising graduate and undergraduate students, establishing collaborative research networks, services to the university community and outside.

Researcher – Urban Health Mapping Project, ArcTech Ltd. with partnership of UNICEF (November 1998 – July 2000)

- Responsibilities include, training material development for local people and for local government officials. Preparing GIS maps showing health center's access to 24 local municipalities based on road accessibility.

Preparing reports, analyzing data and summarize information for presentation before international counterparts.

C. Professional Certification and Memberships in Learned Societies

- *Member:* Association of European School of Planners *(AESOP)*
- *Member:* Bangladesh Institute of Planners *(BIP)*
- *Member (Student):* Canadian Institute of Planners (*CIP*) and Alberta Chapter (*APPI*)
- *Member:* Canadian Association of Geographers (*CAG*)
- *Member:* International Society for Sustainable Development (*ISSD*).

D. Awards, Distinctions and Fellowships

1. Digital Globe Foundation research grant for digital imagery grant, USA 2017 – 2018 (CAN$25,000).
2. Open Access Education (OER) Grant, University of Calgary, AB, Canada 2017 – 2018 (CAN$25,000).
3. National Science and Engineering Research Council (NSERC) Canada 2016 – 2018 research grant (CAN$21,000 each year).
4. International Open Access Journal Publication Grant, University of Calgary, Canada, 2017 (CAN$1,200).
5. International Open Access Journal Publication Grant, University of Calgary, Canada, 2016 (CAN$1,700).
6. International travel grant (provided by Schulich school of engineering and department of Geomatics engineering at the University of Calgary), Canada 2015 (CAD$ 2500).
7. Alberta Innovates Technology Future (AITF) individual research grant, 2014 - 2018 (CAN$ 31,500/year).
8. International invited speaker grant from Humboldt Foundation Germany 2016, as an invited speaker for earthquake disaster management in Nepal (CAD$ 2500).
9. International Travel Grant from Croucher Foundation Hong Kong, 2015 (CAD$ 2,500).
10. World Meteorological Organization (WMO) invited speaker in coastal inundation forecasting project at Jakarta, Indonesia, December 2013 (CAN$ 10,000).
11. Laurier Graduate Fellowship, Wilfrid Laurier University, Waterloo, Canada, 2011: Competitive one among graduate students for MES research (CAN$ 8,000).
12. Canadian Association of Geographer's Conference Presentation Fund, Canadian Association of Geographers – 2011 (CAN$ 300).
13. Faculty of Arts, Wilfrid Laurier University, Waterloo, Canada – First Prize for Poster, 2011 (CAN$ 300).
14. Alexander Von Humboldt Fellowship, International Competition for Postdoctoral Research Grant (Individual Category), Germany, 2009 (50,000 ERUO equivalent to CAN$75,000).
15. Marie Courie Fellowship with Ministry of Education, Portugal, International competition for postdoc research (Individual Category), Portugal 2008 – 09 (20,000 EURO equivalent to CAN$35000).
16. International Conference Travel Award (The Netherlands), Oral Presentation in the Association of European School of Planning Conference 2010 (CAN$1500).
17. International travel fund for a guest speaker in Mega city food project, Helsinki, Finland, 2010 (Equivalent to CAN$ 2500).
18. International travel grant to present paper at the conference of sustainable mobility, Stuttgart, Germany, 2009, (CAD$ 2500).
19. Netherlands Fellowship Program (NFP) fund for international training on transportation management (Individual category), Rotterdam, The Netherlands, 2008 (CAN$ 12,000).
20. International Travel and Guest Speaker Fund, UNDP, UN-Habitat and Helsinki Technical University Finland for Workshop organized in Asian Institute of Technology (AIT), Bangkok, Thailand 2007 (CAN$ 5000).
21. International Travel and Oral Presentation Fund, United Nations Development Program (UNDP) – Sustainable cities program organized at Trieste, Italy 2007 (CAN$ 2500).
22. International Travel and Oral Presentation Fund, Ministry of Environment and UN-Habitat, Finland 2007 (CAN$ 3000).
23. International Speaker Series and Participation Fund for research and training presentation at Asian Development Bank (ADB) in Manila, Philippines 2006 (CAN$ 3000).
24. Japan International Cooperation Agency (JICA) fund for doctoral study: International competition (individual category) 2003 for three years (CAN$ 120,000 equivalent).

25. Center of Excellence (COE) travel and field research fund from the University of Tokyo (Individual category), University of Tokyo, Japan 2004 (CAN$ 2800).
26. International Guest Speaker Series – Nantes Local Government Fund (Individual Category), France 2006 (CAN$ 4000).
27. Ministry of Education Research Fund – Bangladesh, Won individual research project in 2006, Bangladesh (CAN$ 30,000).
28. Research grant from the University of Tokyo, Japan for attending the International Conference on Transportation Planning, Bangkok, Thailand, 2005 (CAD$ 2000).
29. International research grant to conduct field investigation – Center of Excellence (University of Tokyo), Japan, 2003 (CAD$ 5000).
30. Swedish International Development Agency (SIDA) research fund for MSc. dissertation, 2002 (CAN$ 6,000).
31. International travel grant from the ministry of education – Bangladesh for attending the international conference on rural development, Kolkata, India 2001(CAD$ 300).

III. EDUCATIONAL ACTIVITIES

A. Courses taught

Undergraduate and Graduate Level at different Universities

Level	University	Course number/name	Responsibility	Period	Overall evaluation (1 to 5)
Undergrad	University of Alberta – Edmonton, AB	HGP252: Environmental Hazards	Lectures (40 students)	Winter 2019	Not done yet
	Wilfrid Laurier University – Brantford, ON	GG231: Disasters and Risks GG294: Geography of Tourism	Lectures (Approximately 200 students)	Fall 2013 and Winter 2014	4.50
	University of Waterloo, ON	Geography/Environmental Studies/Plan 101: Human Geography	Lecture (Approximately 350 Students)	Spring 2011 and Fall 2012	4.58
		Geography/Environmental Studies/Plan 203: Environment and Global Development	Lecture and Lab(Approximately 200 Students)	Spring 2012 and Spring 2013	4.75
	Wilfrid Laurier University – Brantford, ON	Geography 102BR: Human Geography	Lecture and Lab (Approximately 60 Students)	Winter 2012	4.50
		Contemporary Study 450: Cities in Contemporary Life	Lecture and Lab (Approximately 40 Students)	Winter 2013	4.7
	Khulna University, Bangladesh	Plan 4121: Regional Planning Analysis	Lecture and Lab (Approximately 40 Students	F, W, S 2002, 2006	4.90
		Plan 3233: Urban Transportation Planning	Lecture and Lab (Approximately 40 Students	Winter 2002,2007	4.89
		Plan 3231: Urban Design and Landscape	Lecture and Lab (Approximately 40 Students	Fall 2005,2008	5.00

		Plan 3161: Remote Sensing and Aerial Photo	Lecture and Lab (Approximately 40 Students	Spring 2003,2008	4.80
Graduate	University of Minho - Portugal	Plan 5261: Urban Planning Theories	Lecture and Lab Approximate 25 students	Fall 2009	4.85
	Khulna University-Bangladesh	Plan 6101: Planning Workshop	Lab (20 students – Seminar course)	Winter 2006	4.90
	Khulna University-Bangladesh	Plan 6239: Natural Resource Management	Lecture (30 students)	Winter 2007	4.95

Invited seminars/lectures

Institute	Description	Period
University of Calgary	Invited speaker: how to conduct mediated modeling	April 2017
University of Calgary	Teaching Assistant, Guest speaker, and visiting lecturer for Environmental Modeling Course.	March 2015
Environment Canada, Weather and Society Conference 2014	Chaired a session, discussed on the issues of coastal inundation and human problems for the community in developing countries	Aug. 2014
WMO and Indonesian Meteorological Office	Facilitating the stakeholders meeting for introducing the coastal inundation forecast demonstration project in Jakarta, Indonesia	Dec. 2013
University of Waterloo, ON Canada	Geography 329: Transport Geography Conducted a lab session and a 3 hours lecture about non-motorized transportation planning in developing countries	Win. 2009 Win. 2010
	Geography 101: Human Geography Conducted 2 hours presentation on natural hazards and urban planning	Win. 2011
Helsinki Technical University, Finland	Plan 401: Sustainable Urban Transportation Conducted a 6 hours session on urban transportation planning lab	Win. 2009 Win. 2010
University of Porto, Portugal	Plan 2131: Urban Design and Landscape Planning Guest speaking session in undergrad class	Fall 2009
Asian Institute of Technology (AIT), Bangkok	Session conducted in sustainable cities: bridging the gaps' workshop Full day session about sustainable transportation planning: Theories and practice	Spring 2007
National Environmental Institute – Tokyo, Japan	Organized a full day seminar on urban transportation planning: overview in developing and developed countries	April 2005

B. Graduate and Undergraduate Supervision

No.	Name	Students' department	Years of supervision	Level	Year of expected completion	Supervisory role

1.	Firoz Ahmed	Urban Planning	2002	Undergrad	2002	Supervisor
2.	Moinul Hasan	Urban Planning	2003	Undergrad	2003	Supervisor
3.	Shariful Islam	Urban Planning	2007	Undergrad	2007	Supervisor
4.	Sajal Ahmed	Urban Planning	2008	Undergrad	2008	Supervisor
5.	Ryhan Shovon	Urban Planning	2008	Undergrad	2008	Supervisor
6.	Maruf Hasan	Urban Planning	2009	Undergrad	2009	Supervisor
7.	Tusar Roy	Urban Planning	2006-08	Grad	2008	Co-supervise
8.	Rikta	Urban Planning	2007-09	Grad	2009	Co-supervise
9.	Jasmin Huq	Urban Planning	2007-09	Grad	2009	Co-supervise

C. Teaching Interest

- Natural Resource Management and Planning
- Geographic Information System (GIS) for Planners
- Remote Sensing and Aerial Photo Interpretation
- Urban Transportation Planning and Analysis
- Urban Design and Landscape Planning
- Basic Environmental Engineering
- International perspectives of development studies
- Human Geography
- Political Economy and Environmental Management
- City Planning / Urban Planning Theories and Practices
- Urban Economy/Informal Economy/ Economic Geography
- Climate Change: Human Dimension

IV. SCHOLARLY ACTIVITIES

A. Research Support

Grants/Research Funds

Funding agency	Dates	Amount	Project title	Inv.	Remarks
(a) Support held					
Ministry of Education, Bangladesh	2007-2009	$30,000	Poverty alleviation strategies through GIS applications in city planning	Khan Rahaman	Principal Investigator
Asian Development Bank (ADB)	2008	$5,000	Developing options for sustainable urban transportation in mega city	Khan Rahaman	Co-Investigator
United Nations (UNDP)	2006-2007	$10,000	Coastal environmental disaster risk reduction strategies	Khan Rahaman	Co-Investigator
Practical Action - UK	2006	$5000	Solid Waste Management strategies for local governments in Bangladesh	Khan Rahaman	Principal Investigator
Intermediate Technology Development Group (ITDG – UK)	2005	$ 5000	Community development project	Khan Rahaman	Principal Investigator
(b) Support applied for					
ESRC – DFID (UK)	2017-2018	$150,000	Crop suitability assessment for food security using remote sensing imageries	Khan Rahaman	Co-Investigator
CDKN (Climate Development Knowledge Network)	2017	$100,000	Coastal climate adaptation strategies in the South	Khan Rahaman	Principal Investigator

B. Research Interest

- Climate change adaptation and mitigation policies in North America, Europe and Asia
- Urban environmental management (local and regional level)
- Urban transportation planning
- Dynamics of urban and rural linkages
- Food security assessment through application of GIS and remote sensing
- Participatory planning and Focus Group Discussion (FGD)
- Comprehensive planning approaches and problem solving strategies
- Municipal urban planning processes: Theories and Practices
- Natural resource management and disaster management
- Political economy and urban geography

C. Publications

At a glance

Category	Total number
Peer-reviewed journal papers (published/ in press)	29
Peer-reviewed journal papers (in review)	1
Peer-reviewed full conference papers	7
Other peer-reviewed full conference papers	22
Books	3
Book Chapters	2
Abstracts	20
Presentation only	6
Technical reports	2
Grand total	92

Peer-reviewed journal papers

[J-1]. Ahmed, M. **Rahaman, K**. Hassan, Q. (2018). Remote sensing based analysis of wildfire disaster damage at community level, In Press, Remote Sensing, MDPI.

[J-2]. **Rahaman, K**., Hassan, Q. (2017). Quantification of local warming trend: A remote sensing-based approach, Plos One Publisher, 12(1): e0169423.

[J-3]. **Rahaman, K**. Hassan, Q. Ahmed, R. (2017). Pan-sharpening of Landsat-8 Images and Its Application in Calculating Vegetation Greenness and Canopy Water Contents, International Journal of Geon-Informatics, MDPI Publisher, 6(6): 168.

[J-4]. Ahmed, M. **Rahaman, K.** Kok, A. Hassan, Q. (2017). Remote sensing-based quantification of the impact of flash flooding on the rice production: A case study over northeastern Bangladesh, Sensors, MDPI Publisher, 17(10) 2347.

[J-5]. Veiga, V., Hassan, Q., He, J., **Rahaman, K.** (2016). Exploring the potential of a Landsat-8 satellite image in mapping the 2013 flood extent over Calgary, Alberta, Haznet, 2: 22 – 25.

[J-6]. Ghari, V., Lazerjan, M.m **Rahaman, K**. (2015). Work efficiency of winch in skidding operation in seri-I of Ezdarak Forestry Plan in Lajim area in the North of Iran, Middle East Journal of Management, 2 (1): 21 – 30.

[J-7]. Dhar, K., Hossain, M., **Rahaman, K.,** (2013), How does Flexible Design Promote Resource Efficiency for Housing? A study of Khulna, Bangladesh, Journal of Sustainable Built Environment, Emerald Publisher, UK.

[J-8]. **Rahaman, K.,** Lourenco, J., Viegas, J., (2012), Perceptions of Pedestrians and Shopkeepers in European Medium-Sized Cities: A study of Guimarães, Portugal, Journal of Urban Planning and Development, American Society of Civil Engineers (ASCE), March 2012, USA, pp. 26 – 34.

[J-9]. Mallick, B.; **Rahaman, K**.; Vogt, J; (2011), Coastal livelihood and physical infrastructure in Bangladesh after the cyclone *Aila*, Mitigation and Adaptation Strategies for Global Change, Springer Publisher.

[J-10]. **Rahaman, K.**; Ahmad, Ashik, (2010), Analyzing the patterns of travel behavior in Jessore City, Bangladesh, Brazilian Journal of Urban Management, Volume 2, Issue 3, 2010. ISSN: 2175 – 3369.

[J-11]. **Rahaman, K.**; Lourenco, J., (2010), Importance of Pedestrian Planning in City Center: A Study of Guimarães and Braga, Journal of Territorial Mobility (TeMA), Volume 3 (1), March, 2010. Italy. ISSN: 1970 – 9889. pp. 37 – 46.

[J-12]. Mallick, B.; **Rahaman, K**.; Vogt. J., (2011), Social vulnerability analysis for sustainable disaster mitigation planning in coastal Bangladesh, Journal of Disaster Prevention and Management, Vol. 20 (3) Emerald Publisher, the UK. pp. 220 – 237. (SSN: 0965-3562)

[J-13]. **Rahaman, K**., Dhar, T. Hossain, MD., (2014), Bangladesh Municipality Development Fund (BMDF): A success story for sustainable urban development, Management Research and Practice, Vol 6 (1): 46 – 64.

[J-14]. **Rahaman, K.,** Dhar, K, Hossain, MD., Khan Shehris, (2009), A Comprehensive Approach to Model Pedestrians' Safety in Dhaka City, Bangladesh, European Journal of Social Science (EJSS), London, UK, Volume 12, Number – 2, 2009. pp. 197 – 204. ISSN No: 1450 – 2267.

[J-15]. **Rahaman, K.**, Hossain, Zakir, Rahman, Ashiqur, Islam, Sharif, (2009), Practicing Governance: Pitfalls and Potentials – A study of Bangladesh, Journal of Economics and Management, Vol. 12, No. 2, 2009, pp. 57 – 72, Bucharest Academy of Economic Studies, Romania, ISSN: 1454 – 0320.

[J-16]. **Rahaman, K.**, Salauddin, Md., (2009), Sustainability of Urban-Rural Linkage in South-Western part of Bangladesh: a Study of Khulna Region, Journal of Geography and Regional Planning, Issue October, 2009, Academic Journal Press, ISSN 2070-1845.

[J-17]. **Rahaman, K.**, Rahaman, Arifur, (2009), Service quality attributes affecting the satisfaction of railway passengers of selective route in southwestern part of Bangladesh, Journal of Theoretical and Empirical Research in Urban Management, Department of Public Administration, Bucharest, Romania, Number 3, Issue 12, pp.1- 11

[J-18]. **Rahaman, K.**, Shariful Islam, (2009) Measuring Space–time Accessibility To Urban Opportunities: A Study On Demand For And Supply Of Activities Performed By University Teachers And Students Of Khulna City, Journal of Sustainable Development and Planning (SDP), Volume 4, Issue 1, pp. 1-13, WIT Press, UK

[J-19]. **Rahaman, K.**, Ahmed, S., (2009), A Spatial analysis on the provision of urban public services and their deficiencies: A study of some selected blocks in Khulna City, Bangladesh, Journal of Theoretical and Empirical Research of Urban Management, Department of Public Administration, Bucharest, Romania, Number 2 (10), Issue 2009 May.

[J-20]. Shariful I., **Rahaman K.** , Sohel Jahangir Ahmed, (2008): 'Demand of Participants' or 'Supply of Opportunities': Measuring Accessibility of Activity Places Based on Time Geographic Approach, Journal of Urban Development and Planning, Volume 134, Number 4, American Society of Civil Engineers, (ASCE), NY, USA. pp. 159-165.

[J-21]. **Rahaman, K.**, Hossain, Zakir,; (2009), Utilizing urban space for better traffic management - A Study of Khulna Central Business District, Bangladesh, Journal of Management Research and Practice, Volume 1, Issue 1, December, pp. 26 – 38. ISSN- 2067- 2462. Bucharest, Romania.

[J-22]. **Rahaman, K.,** Ohmori, N., Afrin, S., Hossain, M. (2006), Assessing the walkway's level of services by using analytical hierarchical processing: A model developed for Dhaka City, Bangladesh, Plan Plus, Bangladesh, 2006(4): 136 – 144.

[J-23]. Md. Rahman, **Rahaman, K.**, Sadia Afrin: (2005) "Real-time Web-based Geographic Information System and Remote Sensing for Flood Management", Published in the Journal of City Planning, Institute of Urban Planning, BIT Press, Vol. 4, No 3, 2005, Indonesia, pp.18 – 26. ISSN: 0853 – 9847

[J-24]. Kazi, I., **Rahaman, K.**, (2006): Banning of two-stroke three-wheelers and their after effects and agglomeration to other cities, A study of Khulna, Bangladesh, Journal of City Planning, Vol. 3, No 2, Bundung, Indonesia, pp. 26 – 35. ISSN: 0853 – 9847

[J-25]. **Rahaman, K.**, Md. Mostafizur Rahman, (2006): Water Logging: Causal Effect of Shrimp Cultivation in Coastal Belt of South Asia? A case study in Khulna Region, Bangladesh, Journal of development studies, Kolkata, India. Pp. 32-41.

[J-26]. **Rahaman, K.**, Ripon D., & Md. Islam, (2008) Managing Efficiency Of An Urban Road Toward Better Transport System, Journal of City and Regional Planning, Vol – 9, No – 3, December 2009, pp. 75 – 85, Publisher: Bundung Institute of Technology, Indonesia. ISSN: 0853 - 9847

[J-27]. **Rahaman, K., Hossain Md.,** (2009): Pedestrian Accident and Awareness: A Study of Dhaka City, Bangladesh, Khulna University Studies, Journal by Khulna University, Bangladesh, Vol-9, II, December 2008, Pages: 173 – 180, ISSN: 1563-0897.

[J-28]. **Rahaman, K.,** Maruf H., (2008) Using Multispectral Remote Sensing Image to Assess Food Security, A Study of Narayanganj Area, Bangladesh, Jahangirnagar University Journal of Science, 2008. Volume 1, No. 30. pp. 19-27

[J-29]. Shahidul, I., **Rahaman, K.**, (2007), Environment and Sustainable Development in Bangladesh, Bangladesh Journal of Resources and Development, Center for Resources and Development Research, Chittagong University, Bangladesh. Volume IV, No I, pp.89-101.

Books

[B-1]. **Rahaman, K**.; Biswas, MD., (2010), Influence of indigenous rural transports in rural economy in south western part of Bangladesh. Lambert Academic Publishing, Saarbrücken, Germany, ISBN – 978-3-8383-3861-3

[B-2]. **Rahaman, K.**; Salauddin, MD., (2010), Dynamics of Urban – Rural Linkages in south west part of Bangladesh, Lambert Academic Publishing, ISBN 978-3-8383-4700-4, Germany.

[B-3]. **Rahaman, Khan**; Rahaman, Md. Arifur, (2010), An Assessment of Railways Level of Services: A Study of South Western part of Bangladesh, Lambert Publishing House, ISBN: 978-3-8383-4999-2, Germany.

Book Chapters

[BC-1]. **Rahaman, K.** (2017), Social capital and good governance – A nexus for disaster management: Lessons learned from Bangladesh, Living under the threat of earthquakes, Natural Hazards, Nature and Springer publisher (In press).

[BC-2]. **Rahaman, K**., Lourenco, J. (2011), The role of GIS in city competitiveness, Book Titled as City Competitiveness and Improving Urban Subsystems: Technologies and Applications", Edited by: Dr. Melih Bulu, AGI Publication, New York, USA, pp. 35 – 60.

[BC-3]. **Rahaman, K.** Islam, S., Debnath, B., (2008), Shrimp cultivation and impact on agricultural land in the South Western part of Bangladesh, Development Studies – II, Kolkata, India.

[BC-4]. Ahmed, S**.**, **Rahaman, K**., (2014), Sustainability challenges and the manifestation of poverty in mega cities of the global south: focus on Dhaka, Bangladesh, Sustainable Urban South, Research in Urban Sociology, Emerald Publishers, UK. Pp. 143 – 166.

[BC-5]. Mallick, B., **Rahaman, K**., Vogt, J. (2015). Social vulnerability analysis for sustainable disaster mitigation planning in coastal Bangladesh, New Perspectives in Global Environmental Disasters, Emerald, UK. Pp. 155 – 174.

Peer-reviewed full conference papers

[PRC1]. **Rahaman, K.** (2017). Modelling an integrated non-motorized transportation systems in European perspective, Co-Mobility Share Conference (CoCoMo), Bern, Switzerland, September 5 - 8, 2017.

[PRC2]. **Rahaman, K.**, Hassan, Q. (2016). Application of remote sensing to quantify local warming trends: A Review, 5th International conference on informatics, electronics & vision, Organized by IEEE advancing technology for humanity, Dhaka, Bangladesh, May 13 - 14, 2016. (Full paper under review: pp. 1 - 6).

[PRC3]. **Rahaman, K**. (2016). Social capital and disaster management nexus, Living under threat of earthquake conference at Kathmandu, Nepal, February 19 to 22, 2016, (Organized and sponsored by Humboldt Foundation, Germany). pp. 18 - 23.

[PRC4]. **Rahaman, K**. Hassan, Q. (2016). Application of remote sensing to quantify local warming trends: A review, IEEE Explorer, 256 – 162.

[PRC5]. **Rahaman, K**., Hassan, Q. (2015). Quantifying local warming trend in the face of climate change, Conference on climate system, September 28 – October 2, 2015, AZ, USA.

[PRC6]. **Rahaman, K**., Hassan, Q. (2015). Application of remote sensing to understand local warming trend in urban areas based on climate stations' data, Conference on urban climate change and application of remote sensing, December 7 – 11, 2015, Hong Kong.

[PRC7]. Hazaymeh, K., Hassan, Q., **Rahaman, K**., (2015). Satellite-based spatio-temporal data fusion: current status and its implications, SKI Canada conference, 2015, Banff, AB, February 27 – March 1, 2015.

[PRC8]. K.S. Hanna (presenter), A. Dale, P. Filion, Z. Khan, C. Ling, **Rahaman K.**, and M. Seasons, (2012), Local planning for adaptation: the state of policy and actions in Canada, Planet Under Pressure 2012 Conference, London (UK), March 2012.

[PRC9]. K.S. Hanna, A. Dale, P. Filion, Z. Khan, C. Ling, **Rahaman, K.**, M. Season, (2013), Planning for adaptation

in an uncertainty setting: Local government action in Canada, AESOP and ACSP joint congress, Dublin, Ireland, July 15 – 19, 2013.

[PRC10]. K.S. Hanna and A. Dale, P. Filion, Z. Khan, C. Ling, **K. Rahaman**, and M. Seasons, (2013), Policy uncertainty and planning for adaptation: Canadian local government experiences,: European climate Change Adaptation Conference, Hamburg, March 2013

[PRC11]. **Rahaman, K.**; Halder, K., (2012), Rapid urbanization and impacts on urban ponds: An anatomy of water ponds in Khulna city, Bangladesh, Congress of Social Science and Humanities, Wilfrid Laurier University and University of Waterloo, May 29 to June 2, 2012, Waterloo, Ontario, Canada.

[PRC12]. **Rahaman, K.**; Kevin S. Hanna, (2011), Comparing climate change adaptation strategies between selected EU countries and Canada, CAG Annual Meeting, Calgary, Canada, May 29 to June 4, 2011.

[PRC13]. **Rahaman, K.**; Andrey, Jean; Derrick, Humbly, (2011), Pedestrian Accidents in Ontario due to weather and environment, CAG Annual Meeting, Calgary, Canada, May 29 to June 4, 2011.

[PRC14]. **Rahaman, K.**; Ahmed, Saleh, (2011), Demystifying the Rhetoric of Slums in Dhaka: A Critical Review on the Spatial Manifestation of Urban Poverty, CASID Conference, Fredericton, NB, Canada, May 28 to May 30, 2011.

[PRC15]. **Rahaman, K.** and Nicole Holzapfel, (2011), Investigating Student's Mobility in Waterloo Region, Paper and poster presented at the joint program in the university of Waterloo and Wilfrid Laurier University, March 28, 2011. Won the first prize among 55 participants.

[PRC16]. Alam, A. **Rahaman, K.**, (2011), Neoliberalism and application of the home ownership policy of Singapore in Hong Kong, Asia Pacific Network for Housing Research (APNHR) conference 2011, Hong Kong, 8 – 10 December, 2011.

[PRC17]. Murphy, B.; **Rahaman, K.**; Tammar, A., (2011), Public and private responses to flood disaster in Kingdom of Saudi Arabia: A study of Jeddah city, Canadian Associate of Geography – Ontario conference, October 20 – 21, 2011, Orillia, Ontario, Canada.

[PRC18]. **Rahaman, K.**; Hassan, Q., (2011), Prospects and challenges of wind energy: A comprehensive anatomy, International Conference on Mechanical Engineering, December 18 – 20, Dhaka, Bangladesh.

[PRC19]. **Rahaman, K.**, Md. Biswas, (2010), Traffic Injuries in Rural Highways: An Evaluation Model of South-western part of Bangladesh, Paper accepted and will be presenting in 5th International Symposium on Networks for Mobility, Stuttgart 30 September - October, Germany. (Included in the CD ROM)

[PRC20]. **Rahaman, K.**; Lourenco, M. Julia, (2010), Perils of Climate Change Impacts: A Study of some Major Cities in Bangladesh, First International conference of Environmental History and Global Climate Change, Braga, Portugal. 7 – 8 May, 2010. Paper included in the book published by Springer.

[PRC21]. **Rahaman, K.**; Lourenco, M. Julia, (2010), Urban Walkers in Medium-Sized Portuguese Cities: A Study of Guimarães and Braga, WIT Transaction, Sustainable City 2010 Conference, 12 to 14 April 2010, La Coruna, Spain. (Transaction Book and conference proceedings CD ROM).

[PRC22]. Sadia, Afrin; Julia, Lourenco; **Rahaman, K.** (2010), Climate Change in Bangladesh and its adverse impacts on livelihood of urban poor, First International conference of Environmental History and Global Climate Change, Braga, Portugal. 7 – 8 May, 2010. Paper included in the book published by Springer

[PRC23]. **Rahaman, K.**, Jahan, S. (2009), Why do Black Spots Exist? A study of accident scenario in some selected roads in Dhaka City, Bangladesh, International Road Federation 16th World Meeting, 25 to 28 May, 2010, Lisbon, Portugal. Paper accepted in the proceedings CD-ROM.

[PRC24]. **Rahaman, K.**, (2009), Safety of the walkers in Dhaka city? a comprehensive approach to model pedestrians' safety in Dhaka, 45th ISOCARP Congress, 18th to 22nd October, 2009, Porto, Portugal, Proceedings (CD- ROM).

[PRC25]. Salauddin Md., **Rahaman K.**, (2009), Sustainability of Urban-Rural Linkage in South-Western Part of Bangladesh: A Study of Khulna Region, 10th Asian Urbanization Conference, The University of Hong Kong, 17 to 18 August, 2009, Proceedings (CD- ROM)

[PRC26]. Dhar, Kumar, **Rahaman, K.** (2009), Redevelopment Plan of a medium-sized city: Revitalizing the waterfront area of Jessore Municipality, Bangladesh, Design 09 Conference, Berlin, Germany, Included in the proceedings and in the webpage. Reference: G09P0124

[PRC27]. **Rahaman, K.**, Islam, S., Afrin, Sadia, (2009), "Climate change impacts on some cities in Bangladesh over

time: A major threat to Human Environment", Paper presented in the International Conference on Climate Change Impacts, Bangladesh University of Engineering and Technology (BUET), 18-20 February 2009, Proceedings in CD-ROM.

[PRC28]. **Rahaman, K**. and Hasan, S., (2008), "Vulnerabilities to climate change in metropolitan cities in Bangladesh and future challenges in urban planning and development", Accepted to be presented in Copenhagen conference in climate change with the UN, Denmark.

[PRC29]. **Rahaman, K.**, Nobuaki Ohmori, Noboru Harata, (2006): How safe are the walkways in Dhaka City? An empirical study, Accepted for the proceedings of the international conference on "Road safety in developing countries", August 22-24,BUET, Dhaka, Bangladesh, pp. 112 – 118.

[PRC30]. **Rahaman, K.**, Sadia Afrin, (2006): Evaluating the Safety issues of Pedestrians in Dhaka City, Bangladesh, Accepted for the proceedings of the 3rd International symposium "Network for mobility", Oct 5-6, 2006 , Stuttgart, Germany. pp. 39 – 45.

[PRC31]. **Rahaman, K.**, Sohel Jahangir, (2002): Polythene Ban and Its Impacts on Social Life, A Study of Khulna City, Bangladesh, 2002, International Conference on Environment Bangladesh 2002. Volume II, Page 623-31.

[PRC32]. **Rahaman, K.,** (1999): Water Quality of the Bhairab River Along Khalispur Industrial Belt, Khulna City, Bangladesh. 2001, International Conference at Center for Urban Studies (CUS) on its 30th Anniversary, pp. 39 – 48.

[PRC33]. **Rahaman, K.**, Tanjil Sowgat, (2003): Pedestrian Problems in Khulna City, Bangladesh. 2003. An International Conference of Architecture, Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh, 2003. pp. 36 – 44.

[PRC34]. **Rahaman, K.**, Tanjil S., (2006): Level of Execution of Land use provisions in Khulna City Master Plan 2001 – 2010, Conference on World Habitat Day 2006, Organized by: Bangladesh Institute of Planners and Center for Urban Studies, Dhaka, Bangladesh, Proceedings, pp. 49 – 56.

[PRC35]. **Rahaman, K.**, Mahmud S., (2003): Eco-Tourism Facilities in the mangrove forest of Sundarbans, Bangladesh, International Conference held in 2003, University of Khulna, Bangladesh. pp. 42 – 51.

Other peer-reviewed conference papers (e.g., reviewed abstracts) (17 nos.)

[OCP1]. Hassan, K., **Rahaman, K**., Ahmed, M. (2017). Modelling of natural hazards: research at earth observation of environment laboratory at the University of Calgary, IASTED conference on modelling, simulation, and identification (MSI 2017), Calgary, AB, July 20, 2017.

[OCP2]. **Rahaman, K**., Hassan, Q. (2017). Modeling local warming trend using remote sensing data, Modeling Community of Practice, Government of Alberta, Edmonton, AB, March 16 to 17, 2017.

[OCP3]. Chowdhury, H., **Rahaman, K**., Veiga, V., Hassan, K., (2015). Satellite-based daily scale forest fire danger forecasting system and its implementation over Northern Alberta, CRHNet 2015 Symposium, Calgary, AB, Canada.

[OCP4]. **Rahaman, Khan**, S. Reza, (2003): Women empowerment through home based industry development, A Study of Mirpur Slum, Dhaka. Paper accepted in the Istanbul University for its International Seminar, Turkey, 2003. Proceedings, pp. 176 – 184.

[OCP5]. **Rahaman, Khan**, Nobuaki Ohmori, Noboru Harata, (2003): Research on problems of Pedestrians in Dhaka City Bangladesh, Paper presented in the 6th ICCTS conference, Dalian, China 2003. pp. 68 – 74.

[OCP6]. **Rahaman, Khan**, Nobuaki Ohmori, Noboru Harata, (2005): Evaluating the walkway environment of Dhaka City, Bangladesh, Paper presented in the EASTS conference of transport and environment, Bangkok, Thailand 2005. (CD- ROM)

[OCP7]. **Rahaman, Khan**, Nobuaki Ohmori, Noboru Harata, (2006): Assessment of Walkway Environment with some prescribed criteria in Dhaka City, Bangladesh, paper presented on the ISES conference held in BUET, Dhaka, Bangladesh. (CD-ROM)

[OCP8]. **Rahaman, Khan** & Mushfiqur Rahman, (2005): Risk Assessment of some different level crossings of Khulna City area, Bangladesh, Paper presented in the CPIJ conference, Tokyo University, Japan, 2005. Proceedings, pp.24 – 30.

[OCP9]. **Rahaman, Khan**, Nobuaki O., Noboru H., (2006): Evaluating Pedestrian's choice of some specific facilities in Dhaka City to know the LOS, Paper accepted in the ICTTS conference 2006, PR of China. CD-ROM.

[OCP10]. **Rahaman, Khan**, Nobuaki Ohmori, Noboru Harata, (2004): Pedestrian Accidents and Safety Awareness of Urbanites, A Study of Dhaka City, Bangladesh, Proceedings of the ACSP conference, 2004, Chicago, USA. CD – ROM.

[OCP11]. Sadia Afrin & **Rahaman, Khan**, (2007): Searching locations for an alternative of city life using MCE, The 7th International conference on urban planning and environment (UPE 7), World class cities?" 3-5 January 2007, Bangkok, Thailand. CD – ROM.

[OCP12]. **Rahaman, Khan**, Md. Zakir Hossain, (2006): Utilizing Urban Space for Better Traffic Management: A Study of Khulna Central Business District, Bangladesh, Paper Published in the Proceedings of the conference of Asian City Planning 2006, University of Tokyo, Japan. pp. 47 – 57

[OCP13]. **Rahaman, Khan**, Md. Ashiq-ur-Rahman, Md. Zakir Hossain, (2007): Study of Freshwater Wetland management of South Western part of Bangladesh: A Study of Beel Dakatia, Dumuria, Khulna, Paper published in the conference proceedings of IWFM conference (CD – ROM) at Bangladesh University of Engineering and Technology (BUET), Dhaka, March 12 to 14, 2007.

[OCP14]. **Rahaman, Khan** & Tanjil Sowgat, (2007): In search of an Urban Regeneration Approach that Benefits the Poor, Paper published in the conference named as Architecture for Economically Disadvantages, March 23 to 24, 2007, BUET, Dhaka, Bangladesh, pp. 97 – 103

[OCP15]. **Rahaman, Khan**, Md. Hossain, (2007): Access to Housing for Disadvantage groups Using Affordable Standards of Services: A study of Mudafa Slum in Tongi Pourashava, Bangladesh, Paper Published in the conference proceedings, Architecture for Economically Disadvantages, March 23-24, 2007, BUET, Bangladesh, pp. 126 – 133

[OCP16]. Md. Kamrul Islam, **Rahaman, Khan**, (2007): Evaluation of The Bus Stop Environment Of Dhaka City, Bangladesh, Paper Presented in the CERS conference in Slovenia, November, 2007. Included in the Proceedings CD-ROM.

[OCP17]. Md Islam, **Rahaman, Khan**, (2007): Level of Service Assessment (LOS) of some selected railways stations of Dhaka City, Bangladesh, paper presented in the Japan Society of Civil Engineers' conference, 2007 and paper included in the proceedings pp. 227-232.

[OCP18]. **Rahaman, Khan**, Murtaza, M. (2007): Awareness of road safety of urbanites, A Study of Dhaka city, Paper Presented in the Urban Safety Conference, Jointly organized by JSCE and Bangladesh University of Engineering and Technology (BUET), December 2007 and included in the proceedings of CD-ROM.

[OCP19]. **Rahaman, Khan**, (2007): Influences of Signage for Road Safety in Dhaka City, Paper Presented in the Urban Safety Conference, Jointly organized by JSCE and Bangladesh University of Engineering and Technology (BUET), December 2007 and included in the proceedings of CD-ROM.

[OCP20]. Kamrul Islam, **Rahaman, Khan**, (2007) Assessing the level of services of some selected railway stations of Dhaka city, Bangladesh, Paper presented at the international conference of Japan Society of Civil Engineers (JSCE), Yokohama, 2007. (Included in the reviewed proceedings)

Media Interview

[MI-1]. BBC News on Coastal Area's Management and Climate Change Impacts in Bangladesh (Broadcasted in BBC News Radio, May 2007)

[MI-2]. BTV interview (Bangladesh Television) on Municipality Development Projects in 2007

[MI-3]. Newspaper Interview in Helsinki on Food Security and problems in Bangladesh (Published in the daily Helsinki News on August, 2008)

[MI-4]. Channel-I Bangladesh a talk on urbanization (Telecasted on Cable Television in 2008)

Technical reports and other publications

[T-1]. Quazi K., Ahmed M., **Rahaman K.** (2017). Rmote sensing of wildland fire-induced risk assessment framework for the greater Athabasca Oil Sand Region, A report for the National Fire Information Database (NFID), Vancouver, BC, Canada.

[T-2]. **Rahaman, K.**, (2014), Users' Requirement Plan for coastal inundation forecasting demonstration project – Bangladesh (CIFDP-B) at World Meteorological Organization (WMO), United Nations, Geneva, Switzerland.

[T-3]. **Rahaman, K.**, Islam, S., Rahman, M., (2010), Strategy Paper on Role of GIS in poverty alleviation in Khulna City – Bangladesh, Ministry of Education – Bangladesh, 120p.

[T-4]. **Rahaman, K.**, Islam, S., (2008), Solid waste management strategies for local governments in Bangladesh, ITDG Dhaka, Bangladesh. 140 p.

[T-5]. **Rahaman, K.,** (2009), Planning for non-motorized transportation: A success story for Dhaka – Bangladesh, UNDP Sustainable Cities, Trieste, Italy. 15 p.

[T-6]. **Rahaman, K.**, Dhar, T., (2007)., Community planning strategies for untouched community in medium-sized city of Bangladesh, Practical Action – UK, 80 p.

Newspaper Articles

[N-1]. **Rahaman, K.**, Murtaza, G., Jahangir, S., (2003), World habitat day special edition on slums and urban problems in mega cities: The Daily Observer, Dhaka, Bangladesh.

[N-2]. **Rahaman, K.**, (2004), Prospects of sustainability in developing country's cities: How difficult to achieve? The New Age, Dhaka, Bangladesh.

Invited Talks/Speech/Presentation

[IT-1] Hassan, Q., **Rahaman, K.** (2017). Modeling of natural hazards: research at Earth Observation of Environment Laboratory at the University of Calgary, 7th IASTED International conference on modelling, simulation and identification, July 19 – 20, 2017, Calgary, Canada.

[IT-2]. **Rahaman, K.**(2016). Social capital and disaster management nexus, Living under threat of earthquake conference at Kathmandu, Nepal, February 19 to 22, 2016, Organized and sponsored by Humboldt Foundation, Germany.

[IT-3]. **Rahaman, K.**(2015). Application of remote sensing for quantifying local warming in the face of clime change, Changing urban climate and the impact on urban thermal environment and urban living, 7 – 11 December, Hong Kong, Organized by Chinese University Hong Kong and sponsored by Croucher Foundation.

[IT-4]. **Rahaman, K.** (2014). Funding infrastructure development projects after natural disasters in the coastal cities, Dhaka, Bangladesh, 14 – 16 April, 2014, Organized and sponsored by Municipal Development Fund.

[IT-5]. **Rahaman, K.** (2013). Disaster management strategies and stakeholders engagement plans, Jakarta, Indonesia 3 – 5 December, 2013, Organized and sponsored by WMO.

Conferences/Workshops attended as an invited observer (not presenter)

a. Alberta Open Education Resources, 2017, University of Alberta, Edmonton, Canada.
b. Oil Sand Science Symposium 2016, Calgary, AB, Canada.
c. Earthquake and disaster management symposium 2015, Kathmandu, Nepal.
d. Role of NGO's in disaster management conference 2015, Dhaka, Bangladesh.
e. Social science congress 2015, University of Calgary, AB, Canada.

V. SERVICE ACTIVITIES

A. University Service

Service (committees, panels, boards)

- Planner's fair 2007 (Khulna University - Bangladesh)
  Recruited volunteers, gathered materials for display, interacted with the guests at the University compound, Organized events for three days.
- Planner's day Round Table Discussion, 2008 (Khulna University - Bangladesh)
  Organized round table discussion session with other panelists.

School Service

- Hall superintendent (2006 - 2007), Khan Jahan Ali Hall, Approximately 500 student's resident. Khulna University
- Member: Moderation committee of admission test 2007 at Khulna University, (A test organized for 10,000 students to pick 200 students in a calendar year)

- Member: External for annual examination committee 2007 at Khulna University of Engineering and Technology.

Overseas Correspondence Service

- Team member (7 member's team): Coastal inundation forecasting demonstration project to exchange views from different high level stakeholders in Indonesia as a group member of World Meteorological Organization (WMO) (2014), Jakarta, Indonesia.
- Team member (3 member's team): Collaborating overseas universities to exchange students and faculty members (2005 - 2008) with Louisville University – USA, Trondheim Technical University – Norway, University of Newcastle Upontyne– UK.

B. Professional Service

National/international committees/societies

- Member (Student): Canadian Association of Geographers (CAG), 2010 - 11
- Member: Canadian Road Safety Research Foundation (2010-11)
- Member: Ontario Professional Planner's Institution (2010 - 11)
- Member: (Student), Canadian Institute of Planners (CIP), (2010-11)
- Member: ISOCARP (International Society of City and Regional Planners) 2009
- Bangladesh Institute of Planners (BIP): Full Member
- Cities for Mobility: Member, University of Stuttgart, Germany, from 2006
- European Natural Resource Economists: Associate Member
- AEOSP (Association of European School of Planning)
- Network Member: University of East Anglia, UK.
- Member: International Association for Urban Climate.
- Sustainability Science: Member
- Bangladesh Geographic Information System Society: Member
- Tokyo University Alumni
- Khulna University Alumni

Board memberships

- Editorial Board Member: Planplus Journal.

Journal Reviews

- Reviewer: International Journal of Disaster Risk Science, Springer, The Netherlands.
- Reviewer: International Journal Disasters, Wiley-Blackwell, The UK.
- Reviewer: International Journal of Urban Planning and Development, ASCE, USA.
- Reviewer: Mitigation and Adaptation Strategies for Global Change, Springer.
- Reviewer: International Sustainable Development Journal, Canadian Center of Science.
- Reviewer: Journal of Rural and Community Development, Brandon University, Canada
- Reviewer: Journal of Public Administration, Academic Journal Press
- Reviewer: Journal of City Planning, Indonesia
- Reviewer: Journal of Transportation and Planning, FSU, USA.
- Reviewer: Plan Plus, Journal of urbanization and environment in Bangladesh
- Session Moderator: ISOCARP, Porto, Portugal 2009.
- Session Moderator: GIS Workshop, Khulna University 2002

Conference organization

- Session Chair: WWSOC Conference in August 2014, Montreal, Canada.
- Session Chair (Parallel Session): Urban Mobility Conference 2010, Stuttgart, Germany.
- Session Moderator: Sustainable urban transportation conference 2006, Bangkok, Thailand.

C. Public Service

- Community organizer (2005): Empowering local community to bring their voice into urban planning in Khulna City.
- Urban Development Specialist (2007): Financing government fund for local infrastructure development projects in 309 municipalities across Bangladesh.

- Panel member (2008): Sustainable urban transportation project to pursue strategies and recommendations to high level government decision makers in Dhaka, Bangladesh.
- Session chair (2014): WWSOC Conference in August 2014, Montreal, Canada.
- Volunteered (2015): Canadian Risk and Hazard Network (CRHNet), Canada.

VI. PROFESSIONAL DEVELOPMENT ACTIVITIES (Not mentioned earlier)

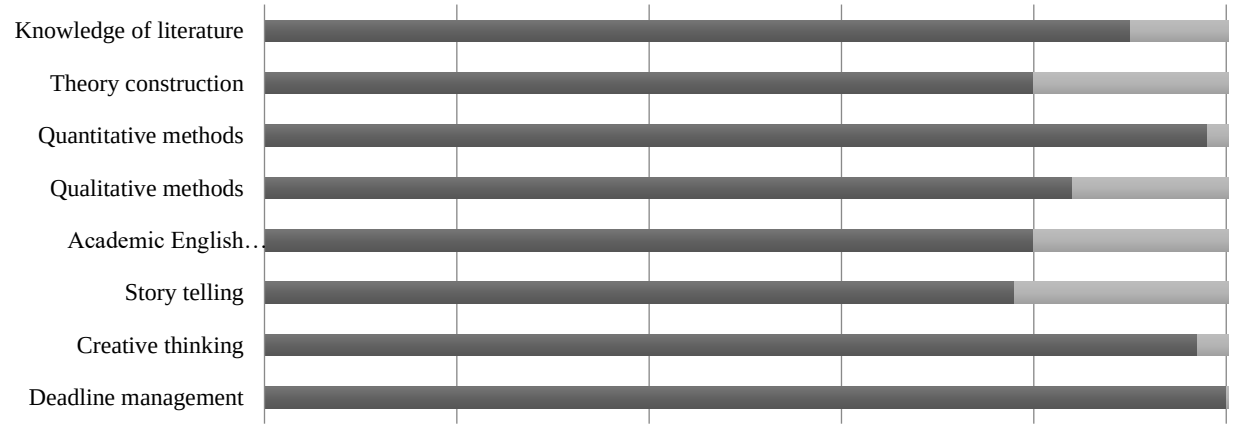
- Co-sharing mobility workshop, Mobility research foundation, Bern, Switzerland, September 2017.
- Attended full day workshop on Alberta Water-Energy-Food nexus, Haskayne School of Business, University of Calgary, Alberta, Canada 2017.
- Partners In Planning (PIP) professional course conducted by the City of Calgary, Canada 2017.
- Attended strategic workshop for Earthquake vulnerability and future development in Kathmandu, Nepal – Organized by Humboldt Foundation, Germany, 2016.
- University of Calgary (UofC) teaching development certificate, Taylor Institute for Teaching and Learning, University of Calgary, AB, Canada 2016.
- Teaching Assistant (TA) training workshop, University of Calgary, Canada, January 2015.
- Training in ArcGIS 10.2, Department of Geography, University of Calgary, AB, Canada. 2014.
- Training in teaching geography and pedagogy development, Canadian Association of Geographers' (CAG) 3 days long training at the University of Waterloo, ON, Canada, 2012.
- Two days Training on course curriculum development in Geography education, Organized by Canadian Association of Geographer, University of Calgary, AB, Canada, 2011.
- ACTIVE Access Europe: Participated in the Active Access European Project's Workshop on 16 to 18 March, 2010 in Aveiro, Portugal.
- UNITAR online course on sanitation and urban governance: March to May 2009, UNITAR.
- Postgraduate Courses in Management Studies, Netherlands Maritime University (NMU), Rotterdam, The Netherlands, October 2008 to March 2009, Funded by NFP, The Netherlands
- "Globalization and Human Settlement" in the Stockholm Summer University (15 days) at Huddinge, Stockholm in 2001 funded by SIDA.
- Research Proposal for International Grants: International Federation of Science (IFS), Stockholm, Sweden, 2007.
- "Wetland Management: A case of Harutori Lake in Kushiro, Japan" funded by JICA (10 days) in Kushiro City, Hokkaidao, Japan in 2004.
- "Sustainable Communities" funded by UNEP, UN-Habitat and Finnish Ministry of Foreign Affairs organized by Helsinki Technical University, Finland on 11th to 25th August 2007.
- South- South Cooperation workshop in Trieste, Italy funded by UNDP on 19 to 22nd September, 2007 with major in Cities and Science.
- Sustainable mobility and governance course in Nantes, France from 8th December to 13th December, 2007 funded by Nantes City Authority and French Government.
- Governance and Transportation, Asia Workshop from 25th to 27th June, 2008 in Manila, Philippines as a delegate. The Workshop was organized by ADB and funded by DFID in its Global Transportation Knowledge Partnership (GTKP) Program.
- Academic Proposal Writing Course, conducted by International Foundation for Science (IFS), Sweden at BCAS (Bangladesh Centre for Advance Studies) in 2008.
- Sustainable community training program as a mentor in Bangkok, Thailand from 10th to 23rd August, 2008 at Asian Institute of Technology (AIT). The workshop is organized by UNEP and UN-Habitat with the collaboration of TKK, Finland and AIT, Thailand.
- Attended the meeting "Cities are more important than countries-Rotterdam" in the 50 years anniversary of IHS, 2008, Rotterdam, The Netherlands

VII. ACADEMIC SKILLS AND COMPETENCIES

A. Skills obtained through training:

- Open Education Resources (OER) and its applicability at post-secondary institution in North American Perspective, The Higher Education Training, NY, 2017.
- The great (and not so great) debate on Laptops in Class, Online Webinar, Inside Higher ED, 2017.
- How to manage block week course, University of Calgary. 2017;
- How to manage block week course, University of Calgary. 2017;
- Becoming a reflective practitioner, workshop attended at the University of Calgary, 2017;
- Facilitating and engaging learners in effective discussions, workshop attended at Taylor Institute (TI) of teaching and learning, University of Calgary (UofC), 2017;
- Responding to students in distress: creating supportive learning environment, TI, UofC, 2017;
- Facilitating active learning, workshop attended at TI, UofC, 2016;
- Grading strategies to assess students learning at TI, UofC, 2016;
- Writing learning outcomes, TI, UofC, 2016;
- Classroom delivery skills, University of Waterloo (UW), ON, 2014;
- Effective lesson plans, UW, ON, 2014;
- Designing a course in geography, Wilfrid Laurier University (WLU), ON, 2014;
- Teaching diverse learners, UW, ON, 2013;
- Teaching and learning – discovery, questioning, and debate, WLU, ON, 2013;

B. Overview of academic expertise:



VIII. VOLUNTEERING/MENTORING EXPERIENCES

- Volunteered with the University of Calgary for promoting science in elementary schools across the Province, Calgary, AB, Canada, 2017.
- Led the team of a non-government organization for promoting non-motorized transportation and sustainability futures for mega cities (Dhaka, Manila) 2010.
- Led the environmental research and application (ERA) organization as an advisor to promote sustainable environment at local government level in Bangladesh, 2010.
- Volunteered session moderator in the sustainable urban transportation research group with the Asian Development Bank (ADB). 2007.
- Organized the SAARC (South Asian Association for Regional Cooperation) tour for a group of urban planners from Bangladesh 2006.
- Mentored workshop for sustainable city building initiatives with the Helsinki Technical University, UNDP and Ministry of Environment – Finland. 2006-07.
- Mentored the debate team at Sahid Sriti Hall, BUET, Dhaka - Bangladesh. 1999.

IX. OTHER ACTIVITES

- Reading novels/magazine

- Watching documentary/news/movies
- Listening songs
- Watching soccer, hockey, and cricket
- Boating and canoeing

X. ACADEMIC REFEREEE'S

1. **Dr. Jean Andrey**, Professor, Department of Geography, University of Waterloo, ON, N2L 3G1, Canada, email: jandrey@uwaterloo.ca Phone: +1 519 888 4567 Ext. 33629
2. **Dr. Q. Hassan, Associate Professor**, Department of Geomatics Engineering, University of Calgary, 200 University Drive NW, Calgary, AB, Canada, Email: qhassan@ucalgary.ca,

Phone: +14032109494. Khan Rubayet Rahaman

Teaching philosophy and interests of Dr. Khan R Rahaman

My general teaching focus at university is to promote learning by engaging students in their learning environment, promoting higher order thinking skills and respecting their opinios and backgrounds. I firmly believe that an educator should enlighten the students with passion, curiosity, knowledge, ideas, confidence, self-evaluation, and continuous improvement opportunities in an academic environment. In a post-secondary institution, I feel myself as an advocate of both deep-learning paradigm and an adoptive teacher with cutting-edge instructional dynamics. Also, I realize that as a teacher, my approaches for communicating the knowledge to several groups of students should be unique according to the need from the learners. Hence, I like to characterize a teacher as not merely a distributor of a fixed knowledge among his/her disciples, but a guide, mentor, philosopher, and an academic idol. Thus, being a teacher, my objectives are to: motivate the students to challenge themselves intellectually; create a convenient learning environment by ensuring appropriate balance between challenge and stress; support the students towards understanding the concepts of the subject rather than memorizing facts and figures; and assist students to gain confidence in themselves in order to become professionals. To achieve these goals, I have implemented and practiced several teaching and learning approaches as my philosophies:

Teaching style:
The ultimate goal of my teaching style reflects a strong commitment to the ideals of liberal education, something I have developed over the past fifteen years as a student and instructor in diverse academic institutions. During my undergraduate and graduate studies, I have been exposed to passionate, innovative, and effective instructors who have inspired me to learn and grow intellectually. It is evident that their attitudes and behaviours have inspired me, to commit to the learning process with excitement and curiosity. Thus, I follow some basic principles of teaching and learning as such: cooperative learning, inquiry-based instruction, utilizing audio-visual instruments and graphical presentation, adequate supervision and assessment, meaningful feedback, and consider concerns of students' progress. Students have regarded my teaching style in many ways and have contributed invaluable comments for improvements. Some of the recent evaluations are summarized in Box 1.

Communicating contents effectively:
I communicate the course content with a clear and precise manner. I usually break down the topics into small pieces so that the students do not feel afraid of the topics and they pro-actively join in the discussion. I believe communication does not mean a one-way approach rather I listen to the students carefully as a super listener. I respect the student's sensitive behaviour, promote equity in the classroom environment, and apply humour appropriately to maintain an effective communication and learning environment.

Focusing the passion and deep knowledge of the subject matter:

Before I start a new course, I first gather up-to-date information and secure in-depth knowledge in the subject matter so that the students can be benefitted from my class. To confirm an active learning environment, I prepare myself ahead of time and organize the course materials to fulfil the high expectations of the students. In the same way, I expect that the students have the passion for learning the subject enthusiastically. Moreover, upon completion of the course, students should utilize the secured knowledge into their professional domain actively.

Innovations of effective teaching in a class:
So far, the most innovative part of my teaching is formulating games among the students with specific topics of my course content and simulate them in computers. Apart from using the powerpoint slides, multi-media technologies, and conventional teaching methods, I invite guest speakers in my class (in person or via Skype), and organize in-house small workshops to brainstorm different ideas of the same piece of problems so that students can understand complex issues from their peers. Also, I organize debates among the students to rationalize their understanding with proven theory in light of the subject matters and course contents delivered in the classes. Additionally, I am well-trained to manage time efficiently and effectively in my classes.

Methods of evaluating students
I usually evaluate students by adopting mix assessment methods such as lab assignment/mini papers; mid-term test, short presentation, class participation, and a final exam. In doing so, I focus on evaluation course-related knowledge and skills; student attitudes, values, and self-awareness; and reactions to instruction methods. Moreover, I believe that fast feedbacks of assignments and tests are critical for the students to keep them motivated. In this regard, I try to evaluate assignments and mid-term exams within a week so that the appropriate feedbacks may help them improve their next lab work or assignment.

An advocate for open education resources:
I believe open education resources (OER) may help students to learn the course content without spending money in textbooks. However, selecting the appropriate OER materials are always challenging. In this regard, I usually adopt/adapt OER materials to be used in my course materials after reviewing them carefully. Sometimes, I develop my own course materials from my research materials those are published in open access international journals. It is worth noting that I have advocated in favour of the OER materials to be adopted/adapted in post-secondary level institutions in Alberta and have received accomplishment letters from the University of Calgary upon creating OER materials for the environmental modelling course in the Schulich School of Engineering with my PhD supervisor. I have also organized OER awareness workshops for graduate students, postdocs, and instructors at the Taylor Institute of Teaching and Learning and the institution duly has recognized the effort.

Believing in continuous improvement:
I believe in the improvement of my teaching style, methods, and commitments. To do so, I sometimes discuss several teaching methods that I apply in my classes with my colleagues seek their thoughtful ideas to improve my ability to bring the standard higher. Also, I receive the student comments and try to improve my course for the next time considering the critical issues they raise in their evaluation. To do so, I maintain a friendliness and approachability environment that ensures caring relationships with the students. Consequently, I always take part in the teaching and learning seminars organized by the university's teaching and learning departments to update myself.

Box 1: Student evaluation directly quoted regarding teaching and learning outcomes.

"I loved how [Professor Khan Rahaman] always had an example and how he would always take in perspective other's ideas and opinions."
"One thing I really liked about his course is how prepared Professor Khan Rahaman was each day. He also brought up thought-provoking ideas. You can tell he is a deep thinker and is very interested in environmental studies and planning discipline."
"The teacher was very knowledgeable about the subject at hand and did a great job of allowing us to discuss our opinions without having a biased opinion herself."
"I really liked the content and thought he did a good job of teaching the subject matter. Dr. Khan Rahaman presented fair views and a broad perspective."
"The instructor was really aware about the problems of the class and always tried to solve issues that had been raised by the class. The assignments were thought-provocative and gave insight views of the theory we learned in the classes."

PLOS | ONE

RESEARCH ARTICLE

Quantification of Local Warming Trend: A Remote Sensing-Based Approach

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Data Availability Statement: The following website was used to obtain the original datasets: http://ladsweb.nascom.nasa.gov/data/search.html. Additionally, the other data (climate normal and climate station-based data) were collected from Environment Canada Website: http://climate.weather.gc.ca/climate_normals/results_1981_2010_e.html?stnID=1641&autofwd=1. Original data (analyzed and model outcomes) have been published at Figshare: DOI: https://dx.doi.org/10.6084/m9.figshare.4486919.

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Abstract

Understanding the warming trends at local level is critical; and, the development of relevant adaptation and mitigation policies at those levels are quite challenging. Here, our overall goal was to generate local warming trend map at 1 km spatial resolution by using: (i) Moderate Resolution Imaging Spectroradiometer (MODIS)-based 8-day composite surface temperature data; (ii) weather station-based yearly average air temperature data; and (iii) air temperature normal (i.e., 30 year average) data over the Canadian province of Alberta during the period 1961–2010. Thus, we analysed the station-based air temperature data in generating relationships between air temperature normal and yearly average air temperature in order to facilitate the selection of year-specific MODIS-based surface temperature data. These MODIS data in conjunction with weather station-based air temperature normal data were then used to model local warming trends. We observed that almost 88% areas of the province experienced warming trends (i.e., up to 1.5°C). The study concluded that remote sensing technology could be useful for delineating generic trends associated with local warming.

Introduction

Climatic regimes are one of the most critical factors in defining the habitat for all living organisms including human beings. In fact, the changes in the climatic conditions have been impacting us most likely since the inception of the earth system. However, the anthropogenic activities (that include industrialization, changes in land use/land cover, and increase of agriculture/food production) have been influencing such climatic changes to a greater extent over the recent several decades (since 1970's) in particular through the release of excessive amount of greenhouse gases into the atmosphere [1]. One of the major components of the recent climate change is manifested in the warming (i.e., increment in temperature) trends at global to regional to local-levels. Both the global and regional warming trends are relatively well characterized in comparison to the local warming trends. Some example cases include:

- Climate Research Unit at University of East Anglia and Hadley Centre of UK have developed a land air temperature anomaly database known as CRUTEM4 for analysing global and hemisphere-specific anomalies [2–3]. In this case, they employed approximately 5500 point-

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ORIGINAL ARTICLE

Coastal livelihood and physical infrastructure in Bangladesh after cyclone Aila

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Abstract This paper aimed at to explore the consequences of cyclone victims due to unavailability of infrastructural supports and to prop up the recognition that the infrastructure has a vital role to play in societies' resilience during catastrophic situation. The paper begins with a review of the science regarding climate change impact and cyclone disaster in Bangladesh. It emphasizes the consequences of cyclone Aila in a selected coastal community in the remote coastal area. A field survey was conducted by authors during March-August 2009. Eight available infrastructures were selected for this analysis. Uniformity of distribution (R), demand index (Di) and degree of demand (DD) of the selected infrastructures were calculated by using nearest neighbourhood methods of analysis. Results show that based on its specific planning standards none of the selected infrastructure can support 50% of the total population. Accordingly, it was observed that 76% respondent could not reach in safer place due to rush of water intrusion and also because of the inundation of road-network. The nearness to the available cyclone shelter, and place of taking shelter during cyclone is positively correlated (r=0.38; p< 0.001). However, the poor people had less opportunity to take shelter in cyclone shelters, although none of the respondents groups whose monthly income is above 75 USD stands without any infrastructural support. Such important observation may hint the influence of local elites on the local disaster mitigation planning practice in Bangladesh. Almost 90% of the respondents claimed that they had no access to enter the available cyclone shelter. Furthermore, the damaged infrastructures added more hindrances during post disaster activities and also increased the sufferings of the victims. If there were adequate cyclone shelters or rehabilitation centre, the affected people could take shelter and continue other works temporarily. Results drawn from this research will be useful for local and national

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