

SHAKIL BIN KASHEM

Landscape Architecture and Regional & Community Planning
Kansas State University
1109 Seaton Hall
920 N Martin Luther King Jr. Dr., Manhattan, KS 66506
E-mail: shakilkashem@ksu.edu

EDUCATION

PhD	University of Illinois at Urbana-Champaign, Dept. of Urban & Regional Planning Dissertation – Moving Towards Disaster: Examining the Changing Pattern of Social Vulnerability in a Multi-Hazard Urban Environment	2015
MURP	Bangladesh University of Engineering & Technology (BUET), Dhaka, Bangladesh Thesis – Simulating Urban Growth Dynamics of Dhaka Metropolitan Area: A Cellular Automata Based Approach	2008
BURP	Bangladesh University of Engineering & Technology (BUET), Dhaka, Bangladesh Thesis – Sustainability of Development Trends in the Urban Fringe: A Case Study of North-eastern Dhaka	2005

RESEARCH INTERESTS

Urban social vulnerability; Housing policy; Community resilience and adaptation; Applications of Big Data; Geospatial Analysis and Planning; Critical GIS and geoweb; Urban growth modeling.

EMPLOYMENT

August 2020 – Present	<i>Assistant Professor</i> Department of Landscape Architecture and Regional & Community Planning, Kansas State University
2015 – 2020	<i>Teaching Assistant Professor</i> Department of Geography and Geographic Information Science, University of Illinois at Urbana-Champaign
2012 – 2015	<i>Instructor/Graduate Assistant</i> Department of Urban and Regional Planning, University of Illinois at Urbana-Champaign
2010 – 2012	<i>Graduate Assistant (ad-hoc consulting)</i> Statistics and GIS Group, Applied Technologies for Learning in the Arts and Sciences (ATLAS), University of Illinois
2009 – 2010	<i>Teaching Assistant</i> Department of Economics, University of Illinois at Urbana-Champaign

2005 – 2009

Lecturer

Department of Urban and Regional Planning, Bangladesh
University of Engineering and Technology (BUET), Dhaka,
Bangladesh

PROFESSIONAL MEMBERSHIP AND CERTIFICATION

American Planning Association (APA)

- American Institute of Certified Planners (AICP), July 2022

Association of Collegiate Schools of Planning (ACSP)

- Member

Association of American Geographers (AAG)

- Member

University Consortium for Geographic Information Science (UCGIS)

- Member

International Society for Urban Informatics

- Member

PUBLICATIONS IN PEER-REVIEWED JOURNALS

Lee, C. A., **Kashem, S.**, & Baker, D. (2024). Affordable Housing Through Community Land Trusts (CLTs): Examining Factors Associated with the Number of Units in CLTs. *Housing Policy Debate*, 1-16, <https://doi.org/10.1080/10511482.2024.2362643>

Paul, B., Stimers, M., Sharif, M., **Kashem, S.**, & Lu, M. (2024). Population Recovery in the US Communities Affected by Tornadoes, 2000-2010. *Natural Hazards*. 1-20, <https://doi.org/10.1007/s11069-024-06598-x>

Wilson, B., **Kashem, S.B.**, & Slonim, L. (2024). Modeling the relationship between urban tree canopy, landscape heterogeneity, and land surface temperature: A machine learning approach, *Environment and Planning B: Urban Analytics and City Science*, <https://doi.org/10.1177/23998083241226848>

Kashem, S. B., & Gallo, D. (2023). Smart Engagement in Small Cities: Exploring Minority Participation in Planning. *Urban Planning*, 8(2), 44-56. <https://doi.org/10.17645/up.v8i2.6607>

Kashem, S. B., Baker, D. M., González, S. R., & Lee, C. A. (2021). Exploring the nexus between social vulnerability, built environment, and the prevalence of COVID-19: A case study of Chicago. *Sustainable Cities and Society*, 103261. <https://doi.org/10.1016/j.scs.2021.103261>

Kashem, S.B. (2019), Housing practices and livelihood challenges in the hazard-prone contested spaces of rural Bangladesh. *International Journal of Disaster Resilience in the Built Environment*, 10:5, DOI: 10.1108/IJDRBE-04-2019-0019

Zhang, Z., Hu, H., Yin, D., **Kashem, S. B.**, Li, R., Cai, H., Perkin, D., and Wang, S. (2018). A CyberGIS-enabled Multi-Criteria Spatial Decision Support System: A Case Study on Flood Emergency Management, *International Journal of Digital Earth*, 12:11, 1364-1381, DOI: 10.1080/17538947.2018.1543363

Hannon, B., and **Kashem, S.B.** (2018). Taming the Wet Prairie of East Central Illinois, *Illinois Geographer*, 59 (2): 94-113

Wilson, B., and **Kashem, S.B.** (2017). Spatially concentrated renovation activity and housing appreciation in the city of Milwaukee, Wisconsin, *Journal of Urban Affairs*, 39(8): 1085-1102

Kashem, S.B., Wilson, B., and Van Zandt, S. (2016). Planning for climate adaptation: Evaluating the changing patterns of social vulnerability and adaptation challenges in three coastal cities. *Journal of Planning Education and Research* focus issue on 'Land Use Planning for Climate Change Adaptation', 36(3): 304-318

Chakraborty, A., Wilson, B., and **Kashem, S.B.** (2015). The pitfalls of regional delineations in land use modeling: Implications for Mumbai region and its planners. *Cities*, 45: 91-103

Kashem, S.B., Irawan, A., and Wilson, B. (2014), Evaluating the dynamic impacts of urban form on transportation and environmental outcomes in U.S. cities. *International Journal of Environmental Science and Technology*, 11(8): 2233-2244 DOI: 10.1007/s13762-014-0630-z

Rashid, S., Yoon, Y. and **Kashem, S.B.** (2011), Assessing the Potential Impact of Microfinance with Agent-Based Modeling. *Economic Modeling*, 28(4): 1907-13

Kashem, S.B., Chowdhury, T.A., Majumder, J. and Rahman, M.A. (2009), Quantifying Urban Form: A Case Study of Rajshahi City. *Journal of Bangladesh Institute of Planners*, 2, 39-48.

Kashem, S.B. and Hafiz, R. (2008), Sustainability of Development Trends in the Urban Fringe: A Case Study on North-Eastern Dhaka City. *Protibesh*, 12(2), 55-67

BOOK CHAPTER

Kashem, S.B., Talukdar, M.A., Morshed, M.M. (2013). Sustainability Assessment of Fringe Area Development of Dhaka City, Bangladesh, in Jahan, S. and Kalam, AKMA. (ed.) *Dhaka Metropolitan Development Area and Its Planning Problems, Issues and Policies*, Bangladesh Institute of Planners, Dhaka, Bangladesh

CONFERENCE PRESENTATIONS

Natallie, W., and **Kashem, S.B.** (2024). "Post-Disaster Recovery in Small Towns: Learning from the Experience of Tornado Recovery in Two Communities" poster presented at the International Conference on Urban Affairs, April 24-27, 2024, New York, NY

Kashem, S.B., Hossain, S., Kim, H., & Natarajan, B. (2024). "VR and AR Technologies for Flood Risk Awareness", poster presented at 2024 ARISE Annual Symposium, April 11-12, 2024, Olathe, KS

Kashem, S.B. (2024). "Small town revitalization through land use reforms", paper presented at Kansas Association of Realtors Winter Advocacy Conference, 23 January 2024, Manhattan, KS

Kashem, S.B. (2024). "Urban growth, flood exposure, and social vulnerability dynamics: a case study on Dhaka Metropolitan Area". BAPA-BEN Conference on Sustainable Urbanization: Challenges and Solutions, 13 January 2024, Dhaka, Bangladesh

Kashem, S.B., Lee, C. A., & Baker, D. (2023). “*Identifying the Local Determinants of Community Land Trust Formation in Small and Mid-Size Cities*”. 2023 Annual Conference of the Association of Collegiate Schools of Planning (ACSP), October 21, 2023, Chicago, Illinois

Kashem, S. B., and Rishi, S. (2022). “*Housing choice, life events, and land use constraints in a small town: a Space-Time GIS approach*”. 62nd Annual Conference of the Association of Collegiate Schools of Planning (ACSP), November 5, 2022, Toronto, Ontario

Kashem, S. B., and Wilson, B. (2022). “*Modeling the Effects of Tree Canopy and Water Body Composition and Configuration on Land Surface Temperature: A Machine Learning Approach*”. 62nd Annual Conference of the Association of Collegiate Schools of Planning (ACSP), November 3, 2022, Toronto, Ontario

Kashem, S. B. (2022). “*Open Source GIS for Resilience Planning*”, presented at 2022 Kansas Chapter American Planning Association Conference, October 20-21, 2022, Topeka, KS

Kashem, S. B., Baker, D. M., González, S. R., & Lee, C. A. (2021). “*Exploring the nexus between social vulnerability, built environment, and the prevalence of COVID-19: A case study of Chicago*”. 61st Annual Conference of the Association of Collegiate Schools of Planning (ACSP), October 21, 2021

Kamal, J.B., Kashem, S.B., Rashid, S. (2021), “*Efficiency of Islamic vs. Conventional banks: Evidence from Agent Based Modelling simulation*”. Foundation of Islamic Finance Conference (FIFC) 2021, Sunway University, Malaysia, 20- 22 March 2021, (received best paper award)

Kashem, S.B. (2020), “*Analyzing Space-Time Dynamics of an Urban System to Support Planning Applications: a CyberGIS-Based Approach*”, 60th Annual Conference of the Association of Collegiate Schools of Planning (ACSP), Online, November 5-8, 2020

Kashem, S.B. (2019), “*Social Vulnerability in the Multi-Hazard Environments of Rapidly Growing Metro Areas: Exploring the Role of Low-Income Housing Provisions*”, 59th Annual Conference of the Association of Collegiate Schools of Planning (ACSP), Greenville, South Carolina, October 24-27, 2019

Tuli, S., and Kashem, S.B. (2019), “*Exploring the Nexus Between Knowledge Capital and Social Vulnerability: A Comparative Study on the U.S. and Australian Cities*”, 59th Annual Conference of the Association of Collegiate Schools of Planning (ACSP), Greenville, South Carolina, October 24-27, 2019

Kashem, S.B. (2019), “*A framework for CyberGIS-enabled multi-scale space-time index for analyzing urban social vulnerability dynamics*”, 2019 Association of American Geographers Annual Meeting, Washington, DC, April 3 - 7, 2019

Zhang, Z., Hu, H., Yin, D., Kashem, S. B., Li, R., Cai, H., Perkin, D., and Wang, S. (2019). “*A CyberGIS-enabled Multi-Criteria Spatial Decision Support System: A Case Study on Flood Emergency Management*”, 2019 Association of American Geographers Annual Meeting, Washington, DC, April 3 - 7, 2019

Kashem, S.B. (2017), “*Social Vulnerability & Low-Income Housing Programs: Evaluating the Challenges in Multi-Hazard Environments of Rapidly Growing Metro Areas*”, 57th Annual Conference of the Association of Collegiate Schools of Planning (ACSP), Denver, Colorado, October 12-15, 2017

Kashem, S.B., Chakraborty, A, and Dewan, A. (2017), “*Urban Sprawl & Social Vulnerability in Developing Megacities: Evidence from Dhaka*”, 57th Annual Conference of the Association of Collegiate Schools of Planning (ACSP), Denver, Colorado, October 12-15, 2017

Kashem, S.B. (2017), “*Analyzing spatial and temporal context sensitivity of emotion mapping: an approach to apply human sensor data for urban planning and design*”, 2017 Association of American Geographers Annual Meeting, Boston, MA, April 5 - 9, 2017

Kashem, S.B. (2016), “*Location-Aware Active Citizenship: Exploring the challenges for developing an enabling geoweb*”, 2016 Association of American Geographers Annual Meeting, San Francisco, CA, March 29- April 2, 2016

Kashem, S.B. (2015), “*Changing patterns of social vulnerability in the multi-hazard environment of Houston: evaluating the role of subsidized low-income housing programs*”, 55th Annual Conference of the Association of Collegiate Schools of Planning (ACSP), Houston, Texas, October 22-25, 2015

Kashem, S.B. (2015), “*Subsidized low-income housing in a neoliberal era: A critical review through the lens of vulnerability production and environmental justice*”, International Sociological Association Research Committee 43: Housing and the Built Environment, Chicago, September 17-19, 2015

Kashem, S.B. (2015) “*Exploring the riddle of livelihood and housing practices in a contested space: A study of hazard-prone rural Bangladesh*”, Initiative on Climate Adaptation Research and Understanding through the Social Sciences (ICARUS) 4th Global Meeting, University of Illinois, Urbana-Champaign, IL, May 7-10, 2015

Kashem, S.B. and Wilson, B. (2015), “*Locating housing subsidies: A critical review of low-income housing programs through the lens of vulnerability production and environmental justice*”, 2015 Association of American Geographers Annual Meeting, Chicago, IL, April 21-25, 2015

Kashem, S.B. and Wilson, B. (2014), “*Developing CyberGIS Pedagogy for Urban Planning Practice and Research*”, The Second International Conference on CyberGIS and Geodesign, Redlands, California, August 19-21, 2014

Kashem, S.B. and Wilson, B. (2014), “*Subsidized Low Income Housing and Social Vulnerability in a Multi-hazard Urban Area: A Case Study of Houston, Texas*”, Urban Affairs Association 44th Annual Conference, San Antonio, Texas, March 19-22, 2014.

Kashem, S.B. and Wilson, B. (2013), “*Urban Growth and Social Vulnerability Dynamics: A Comparative Analysis of Three Coastal Metropolitan Areas*”, Urban Affairs Association 43rd Annual Conference, San Francisco, California, April 3-6, 2013.

Kashem, S.B., Irawan, A., and Wilson, B. (2012), “*Examining the Impact Dynamics of Urban Sprawl on Transportation*”, 53rd Annual Conference of the Association of Collegiate Schools of Planning (ACSP), Cincinnati, Ohio, November 1-4, 2012

Irawan, A. and **Kashem, S.B.** (2012), “*Ports and Regional Economic Performance Across US Counties*”, 53rd Annual Conference of the Association of Collegiate Schools of Planning (ACSP), Cincinnati, Ohio, November 1-4, 2012.

GRANTS

Kashem, S.B. PI. Strengthening Community Resilience through Brownfield Redevelopment, LARCP Faculty Fellowship for Technical Assistance to Brownfields (TAB) at Kansas State University, 2024-2027, \$50,000/year

Pliakoni, E. PI. et. al. **Kashem, S. B.** (Senior Personnel and Seed Project PI), Development of resilient urban food systems that ensure food security in the face of climate change, funded through the Game-changing Research Initiation Program (GRIP) of Kansas State University, 2024-2027, \$950,000

Kashem, S. B. PI, and Hyung Kim & Bala Natarajan, Co-PIs. Virtual and Augmented Reality Technologies for Enhancing Disaster Risk Awareness in Vulnerable Communities, project funded through Research & Education Innovation (REI) Award for Research in Resiliency and Smart Infrastructure of Kansas NSF EPSCoR, 2023-2024, \$70,858

Susmita Rishi, **Shakil Kashem**, and John Verssue, 2023-2024 Susan and Paul Kissinger Award, Kansas State University, \$3,500

Kashem, S. B., C. Aujean Lee, Dwayne Baker, Community Land Trusts in Welcoming Cities: Building Inclusive Housing Models for Immigrants; project funded through *Housing Policy Innovation in Small and Midsize Cities* program of Housing Solutions Lab at NYU Furman Center, with grant from the Robert Wood Johnson Foundation, 2022-2024, \$25,000

Lee R. Skabelund, Howard Hahn, **Shakil Kashem**, 2021-2022 Susan and Paul Kissinger Award, Kansas State University, \$5,000

Kashem, S. B. PI. Exploring the nexus between social vulnerability, built environment, and the spread of COVID-19: a multi-city study, Spring 2021 University Small Research Grant, Kansas State University, 2021-2022, \$4,050

Kashem, S. B. PI. Integrating Augmented Reality with GIS (AR-GIS): Developing Teaching and Learning Modules and Applications, VR@Illinois Seed Grant, University of Illinois at Urbana Champaign, 2018-2019, \$6,000

Kashem, S.B. PI. Developing an Engaging Geospatial Learning Experience through Stories, Provost’s Faculty Retreat Grant, University of Illinois at Urbana Champaign, 2017-2018, \$4,000

Wilson, B., PI & **Kashem, S.B.**, Co-PI. Developing CyberGIS Pedagogy for Urban Planning Practice and Research, NSF CyberGIS Project, CyberGIS Center for Advanced Digital and Spatial Studies Fellow, University of Illinois at Urbana Champaign, 2014-2015, \$8,000

AWARDS AND HONORS

- 2022-2023 UCGIS-IGUIDE Community Champion 2022-2023, Project Title: Big Data and GeoAI for Urban Planning: Current Practices and Future Prospects. Amount granted: \$3,000
- 2023 Received K-State Open Access Publishing Fund (KOAPF) Award from K-State Libraries for my article, "Smart engagement in small cities: exploring minority participation in planning" to be published in *Urban Planning*. Amount granted: \$1,050
- 2021 Best paper award from the Foundation of Islamic Finance Conference (FIFC):
Kamal, J.B., **Kashem, S.B.**, Rashid, S. (2021), "*Efficiency of Islamic vs. Conventional banks: Evidence from Agent Based Modelling simulation*". Foundation of Islamic Finance Conference (FIFC) 2021, Sunway University, Malaysia, 20- 22 March 2021
- 2015 Outstanding Doctoral Student Award, Department of Urban and Regional Planning, University of Illinois at Urbana-Champaign
- 2014-2016 University-wide List of Teachers Ranked as Excellent, University of Illinois at Urbana-Champaign (Spring 2014, Spring 2016, Fall 2017)
- 2013 Graduate College Conference Travel Award for Graduate Students of the University of Illinois at Urbana-Champaign
- 2012 Graduate Student Award by the ESRI Development Center at the University of Illinois at Urbana-Champaign
- 2001 – 2005 University Merit Scholarship: Obtained in eight consecutive academic terms at the undergraduate level for outstanding results.
- 2001 – 2005 Dean's List Awards: Obtained for achieving honors marks in different academic years.

STUDENT ADVISING AND MENTORSHIP

- 2021 – 2023 **MPR Major Professor**
Zachary Abell (MRCP, 2023), Planning for Equity: An Evaluation of Hazard Mitigation Plans LARCP, Kansas State University
Nathan Harrell (MRCP 2023): Evaluating methodological approaches for measuring park accessibility: a meta-analysis, LARCP, Kansas State University
Dora Gallo (MRCP 2022): Minority engagement in planning processes, LARCP, Kansas State University

DJ Johnson (MRCP 2022): How can vacant properties be used to revitalize North St. Louis City? LARCP, Kansas State University
Lance Wackerla (MRCP, ongoing), LARCP, Kansas State University
Madison Kueny (MRCP, ongoing), LARCP, Kansas State University
Natalie Walls (MRCP, ongoing), LARCP, Kansas State University
John Pileggi (MRCP, ongoing), LARCP, Kansas State University

2015 – 2020

Program Advisor

Professional Science Master's in GIS, Department of Geography and GIS, University of Illinois at Urbana-Champaign

2017 – 2018

MSc Thesis Supervisor: Steven Oxley

2016 – 2019

Undergraduate Senior Thesis Supervisor:

Martha Rubin, Grace Newton

Department of Geography and GIS, University of Illinois at Urbana-Champaign

PROFESSIONAL EXPERIENCE AND PROJECT SUPERVISION

2015 - 2020

Project Advisor

University of Illinois at Urbana-Champaign

Completed Projects:

- Evaluating space-time determinants of crime patterns in an urban environment, Graduate Capstone project by Busranur Cakal and Hyun Seok Moon, MS in Geographic Information Science (Completed in December 2019)
- Determining neighborhood typology based on restaurant data and socio-economic characteristics: an application of opensource geospatial tools, Graduate Capstone project by Yang Qiu, MS in Geographic Information Science (Completed in December 2019)
- Geo Visualization of Global Film History, Graduate Capstone project by Tianshun Deng, MS in Geographic Information Science (Completed in December 2019)
- Report Card visualization through web application, Graduate Capstone project by Wenhao Gu, MS in Geographic Information Science (Completed in December 2019)

- Analyzing space-time geography of transit accessibility, Graduate Capstone project by Yatong Zhang, MS in Geographic Information Science (Completed in April 2019)
- Predicting road accident outcomes in Illinois State using multilevel models, Graduate Capstone project by Kixian Yang, MS in Geographic Information Science (Completed in December 2018)
- Data Governance Structure for RPC, Graduate Capstone project by King Ming Lai, MS in Geographic Information Science (Completed in December 2017)
- Creating an interactive webmap with data retrieved from

database, Graduate Capstone project by Yunqi Zhang, MS in Geographic Information Science (Completed in December 2017)
- Geospatial analysis of campus emergency phone system, Graduate project by Jiandong Liu, MS in Geographic Information Science (Completed in May 2016)

2010 - 2014

Research Assistant

University of Illinois at Urbana-Champaign; Projects worked on:
- Residential energy usage and urban form, with Dr. Bev Wilson, Department of Urban and Regional Planning
- Urban growth modeling of Mumbai, with Dr. Arnab Chakraborty, Department of Urban and Regional Planning
- Demographic analysis of Beardstown, IL, with Dr. Faranak Miraftab, Department of Urban and Regional Planning
- Geospatial analysis for voting redistricting, with Dr. Jorge Chapa, Department of Sociology
- Survey of engineers on life-long learning, joint study of National Academy of Engineers and the University of Illinois (ATLAS)
- Survey and analysis of broadband internet users (ATLAS)

2007 – 2009

Team Leader

Feasibility study of mason training and development of IEC materials for mason training on disaster resistant house construction, Funded by Oxfam (GB), Bangladesh

2006 - 2008

Junior Consultant

Preparation of Land Use Plan of Chittagong University of Engineering & Technology, by the Dept. of Urban and Regional Planning, BUET

PROFESSIONAL AND COMMUNITY SERVICES

Faculty Advisor (2022-present)

Student Planning Association (SPA), Kansas State University

Committee Member (2022, 2023)

Association of Collegiate Schools of Planning (ACSP) selection committee member for the Barclay Gibbs Jones Award for the Best Dissertation in Planning

Organizing Committee Chair (2017-2019)

GIS Day at the University of Illinois at Urbana-Champaign

Organizing Committee Member (2016)

GIS Day at the University of Illinois at Urbana-Champaign

Journal Reviewer

Peer-reviewed Journals: *Computers, Environment and Urban Systems*, *Journal of Planning Education and Research*, *Journal of Planning Literature*, *Sustainable Cities and Society*, *Applied*

Geography, Professional Geographer, Energy, Economic Modeling, International Journal of Environmental Science and Technology, Journal of Bangladesh Institute of Planners

Webmaster and Seminar Coordinator (2011 – 2014)

Doctoral Students in Urban Planning (DSUP)-association of Doctoral Students at the Department of Urban and Regional Planning, University of Illinois at Urbana-Champaign

Vice-President (2011 – 2012)

Bangladeshi Students' Association (BSA) at the University of Illinois at Urbana-Champaign

Conference Organizing Committee Member

10th Pacific Regional Science Conference Organization (PRSCO) Summer Institute, Dhaka (May 2008)

Workshop Facilitator

BUET-TU Dortmund Joint Students' Workshop on *Dynamics in Urban Informal Settlements*, organized jointly by Department of Urban and Regional Planning, BUET and Department of Urban and Regional Planning, University of Technology, Dortmund, Germany (March 2008)

Assistant Editor (2006 – 2008)

BIP News Letter, Newsletter of the Bangladesh Institute of Planners (BIP)