

ARNAB CHAKRABORTY
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Education

- 2007: Ph.D. in Urban and Regional Planning and Design, **University of Maryland, College Park.**
- 2003: Master of Urban Planning and Policy, **University of Illinois, Chicago**
- 2001: Bachelor of Architecture (Honors), **Indian Institute of Technology, Kharagpur**

Research and Teaching Interests

Land Use Planning, Scenario Planning, and GIS/Spatial Analysis

Selected Awards and Honors

- Kenneth M. Good Fellowship, Urban Land Institute; 2005
- Jacob K. Goldhaber Award, University of Maryland, College Park; 2006
- Chair, Data and Analysis Committee, Imagine Maryland; August 2005 –
- Metropolitan Washington Regional Leadership Committee Member; Reality Check; 2004 –
- Travel Grants to ACSP 2005 & 2006, ESRI 2005, AESOP 2005, APA 2003 & 2006, EDRA 2003, TRB 2003 & 2006, JPER Writing Workshop 2006

Teaching Experience

- *Communications for Planners*, University of Illinois at Urbana-Champaign
- *Microeconomics of Public Policy and Planning*, University of Maryland
- *Geographic Information Systems*, Johns Hopkins University
- *Recent Developments in Urban Studies: Planning for a Sustainable Maryland*, University of Maryland
- *Recent Developments in Urban Studies: Planning for the Baltimore-Washington Region*, University of Maryland

Selected Short courses and workshops

- July 2007 – Land use planning workshop sponsored by Peking University and Lincoln Institute of Land Policy at *Hangzhou, People's Republic of China*; Topics covered – scenario planning
- July 2006 – Land use planning workshop sponsored by Peking University and Lincoln Institute of Land Policy at *Huangshan, People's Republic of China*; Topics covered – smart growth, introductory statistics
- April 2007, May 2006, February 2006 and February 2005 – Urban Growth Management module sponsored by Lincoln Institute of Land Policy at *Erasmus University, Rotterdam, The Netherlands*; Topics covered – regional visioning, GIS application, moderated workshops using Reality Check visioning model
- April 2005 – Smart Growth Leadership Program for professional planners, sponsored by the University of Maryland; Topics covered – creating a model for regional planning
- April, 2003 – Visualization and Urban Form, a training program for Chicago Transit Authority (CTA) staff, sponsored by Joint Program of CTA and Massachusetts Institute of Technology
- April, 2003 – Role of Visualization in Urban Planning, examples from research and practice, sponsored by UPP662 – Physical Planning III.

Publications

Refereed Journal Papers

- Knaap, G., **Chakraborty, A.**, “Comprehensive Planning for Sustainable Rural Development”, *Journal of Regional Analysis and Policy*, Volume 37, Number 2 (2007);
- Shiffer, M., **Chakraborty, A.**, McNeil, S., Srinivasan, S., Donahue, B., Garfield, G., “A Spatial Multimedia Representation of the Chicago Transit Authority's Rail Infrastructure”, *Transportation Research Record* 1838, pp 1-10, 2003

Refereed Conference Papers

- **Chakraborty, A.**, “Towards an even smarter growth – Comparing land use scenarios for Maryland” *Association of Collegiate Schools of Planning Annual Conference*, Milwaukee, WI, October 2007
- **Chakraborty, A.**, Knaap, G., Shin, J.H., “Is Zoning a Barrier to Affordable Housing” *Association of Collegiate Schools of Planning Annual Conference*, Milwaukee, WI, October 2007
- **Chakraborty, A.**, Knaap, G., Shin, J.H., “Does a regionally integrated development scenario provide aggregate net benefits over local plans?” *Association of Collegiate Schools of Planning Annual Conference*, Fort Worth, TX, November 2006
- Shin, J.H., Knaap, G., **Chakraborty, A.**, Moore, T., Meck, S., Parker, B., “Is Zoning a Barrier to Affordable Housing?” *Association of Collegiate Schools of Planning Annual Conference*, Fort Worth, TX, November 2006
- **Chakraborty, A.**, “Reality Check – The ‘How to’ of a ‘What if’ exercise”, *American Planning Association Annual Conference*, San Antonio, Texas, April 2006 (also Session Organizer, Moderator and Presenter)

- **Chakraborty, A.**, “A simple GIS-based regional visioning model using Legos, spreadsheets and maps” – A review of Reality Check exercises in the Baltimore-Washington region., *Transportation Research Board Annual Meeting*, Washington DC, January 2006
- **Chakraborty, A.**, Knaap, G., “A Planning Support Model for Public Participation in Regional Planning – Reality Check”, *Association of Collegiate Schools of Planning Annual Conference*, Kansas City, MS, October 2005
- **Chakraborty, A.**, “30 Maps, 300 Policymakers, 3000 Squares - A Regional Planning Model”, *ESRI Education User Conference*, San Diego, July 2005
- **Chakraborty, A.**, “2-Hour Recipe for Regional Planning – Reflections on Reality Check”, *Association of European Schools of Planning Annual Congress*, Vienna, Austria, July 2005
- **Chakraborty, A.**, McNeil, S., “Case Study on Chicago’s Median Transit Station”, *Environmental Design Research Association Conference*, Minneapolis, April 2003
- **Chakraborty, A.**, McNeil, S., “Guidelines for Better Design of Median 'L' Stations”, *American Planning Association's Annual Conference*, Denver, Colorado, March 2003

Non-refereed Papers

Selected Working Papers

- **Chakraborty, A.**, “Towards a unified regional vision for the MD-DC-VA region – a public participation approach”
- Brower, S., **Chakraborty A.**, Eisenbach R., Sullivan J., “Smart Sprawl – Survey of alternative development scenarios along scenic byways to identify perceptual elements of context sensitive growth”

Selected Research Experience

- 2004 –: *Baltimore-Washington Scenario Planning Project*
 - Currently working on a developing grid-prototype-simulation-model (GPSIM) for land use change that combines analytical results with those obtained from participatory public processes
- 2005 –: *State of Maryland Build-out Analysis*
 - Led a team of 10+ researchers in analysis of development capacity (households and employment) of the State of Maryland and modeling and computing land use, transportation and environmental indicators
- 2005 –: *Imagine Maryland – Reality Check Plus* (<http://www.realitycheckmaryland.org>)
 - Conceptualized and modeled a multi-year participatory process involving more than 1000 stakeholders and 100 volunteers
- 2003 –: *Zoning and Housing Affordability Study*
 - Participated in a multi-year team-effort to evaluate zoning across six metropolitan areas and assess its impact, most importantly, on affordable housing using 2 Stage Least Square Regression and GIS
- 2004 – 2005: *Reality Check Washington*

- Provided leadership and complete technical management including advising teams of about 30 leading regional organizations and training and managing more than 80 volunteers playing technical (GIS) and participatory (moderators) role

Selected Research Contributions

- Demonstrated that commercial planning support models such as INDEX® do not work well as tools to encourage public participation and developed an alternative GIS and Lego®-based model that not only provides better real-time feedback and less data requirements but can also readily compute similar indicators at a finer scale. The model has so far been used in three regional visioning exercises.
- Developed a land use model (Grid-Prototype-Simulation-Model) that allows heuristic choices to planners and stakeholders in generating alternative scenarios. The model has been used, for the first-time at a statewide scale, for Maryland as a follow-up to Imagine Maryland visioning exercises.

Peer Review Activities

- Journal of Planning Education and Research
- Transportation Research Record
- Environmental Design Research Association

Professional Experience

- 2007 -: Faculty Affiliate, National Center for Smart Growth Research and Education, *University of Maryland, College Park*
- 2005 – 2006: Lecturer, Environmental Sciences and Policy, Zanvyl Krieger School of Arts and Sciences, *Johns Hopkins University*
- 2005 – 2007: Teaching Assistant, National Center for Smart Growth Research and Education, *University of Maryland, College Park*
- 2003 – 2007: Research Assistant, National Center for Smart Growth Research and Education, *University of Maryland, College Park*
- 2002 – 2003: Research Assistant, Urban Transportation Center, University of Illinois, Chicago
- 2002: Graduate Intern, Facilities Maintenance, *Chicago Transit Authority*
- 2001 – 2002: Research Assistant, Great Cities Urban Data Visualization Laboratory, *University of Illinois, Chicago*
- 2000 – 2001: Project Intern, Architecture and Design Services, *HCP Design and Project Management, Ahmedabad, India*
- 1999 – 2001: Research Scholar, Science and Technology Entrepreneurship Park, *Indian Institute of Technology, Kharagpur*

Professional and Departmental Service

- 2003 –: Member - American Planning Association currently affiliated to the Illinois Chapter

- 2006 – 2007: Correspondent, Planetizen – Urban Planning and Development Network
 - 2005 – 2006: Graduate Fellow and Member – Urban Land Institute
 - 2006 – 2007: Member, Review Committee, Best Masters Thesis Award, National Center for Smart Growth, University of Maryland, College Park
 - 2003 – 2007: Member – Transportation Research Board of the National Academies
 - 2003 –: Member - American Planning Association currently affiliated to the Illinois Chapter
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