

**Professor Anahid Basiri (PhD of Geographical Information Science)**

Chair of Geospatial Data Science

UK Research and Innovation (UKRI) Future Leaders Fellow

Editor in Chief of Journal of Navigation

Honorary Professor at the University of Glasgow

Fellow of Royal Institute of Navigation

Associate Fellow at the University of Nottingham

## **1. Professional Appointments:**

- **Professor of Geospatial Data Science and UKRI Future Leaders Fellow** at School of Geographical and Earth Sciences, The University of Glasgow [start 1<sup>st</sup> June 2020]
- **UKRI Future Leaders Fellow:** Centre for Advanced Spatial Analysis (CASA), University College London (UCL) [May 2019 – May 2020]
- **Associate Professor in Spatial Data Science and Visualisation:** Centre for Advanced Spatial Analysis (CASA), University College London (UCL) [May 2020 – June 2020]
- **Lecturer in Spatial Data Science and Visualisation:** Centre for Advanced Spatial Analysis (CASA), University College London (UCL) [December 2017 – May 2020]
- **European Research Council (ERC) Research Fellow in Quantitative Methods and GIS:** Department of Geography and Environment, The University of Southampton [October 2016 – November 2017]. Other responsibilities include:
  - **Guest Lecturer:** The School Geography, The University of Nottingham [2015-2017]
- **Marie Curie Fellow:** Marie Curie Research Fellow at the Nottingham Geospatial Institute (NGI), The University of Nottingham, [November 2013 – October 2016]. (Other responsibilities while at NGI include:
  - **Guest Lecturer:** The School Geography, The University of Nottingham [October 2015-September 2016]
- **Science Foundation of Ireland (SFI) PostDoc Research Fellow:** Strategic Research in Advanced Geotechnologies, Department of Computer Science, Maynooth University, Ireland [April 2012 – October 2013]. (Other responsibilities while at NGI include:
- **Assistant Lecturer:** National Centre of Geocomputation (NCG) and the Department of Computer Science, Maynooth University [April 2013 – Oct 2013]
- **Guest Scientist:** Institute of GIS and Cartography (IKG), Leibniz University of Hannover, Germany, [August 2012 - 2016]

## **2. Journal Papers and Book Chapters:**

1. Xing Gao, Mengqiu Cao, Tianren Yang, **Anahid Basiri**, "Transport development, intellectual property rights protection and innovation: The case of the Yangtze River Delta Region, China", Research in Transportation Business & Management, ISSN 2210-5395, <https://doi.org/10.1016/j.rtbm.2020.100563>, [2020].
2. Melda Salhab and **Anahid Basiri**, "Spatial Data Quality Evaluation for Land Cover Classification Approaches." ISPRS Annals of Photogrammetry, Remote Sensing & Spatial Information Sciences 5, no. 3, [10.5194/isprs-annals-V-3-2020-681-2020](https://doi.org/10.5194/isprs-annals-V-3-2020-681-2020) [2020].

3. Jingjing Yan, Gengen He, **Anahid Basiri**, "Investigation of Potential Cognition Factors Correlated to Fire Evacuation", in *Spatial Cognition XII*, Springer International Publishing, p:143-159, ISBN: 978-3-030-57983-8, 10.1007/978-3-030-57983-8\_12 [2020]
4. **Anahid Basiri**, Muki Haklay, Giles Foody, and Peter Mooney. "Crowdsourced geospatial data quality: challenges and future directions." [2019].
5. Jingjing Yan, Gengen He, **Anahid Basiri**, Craig Hancock, "3D Passive-Vision-Aided Pedestrian Dead Reckoning for Indoor Positioning", *IEEE Transactions on Instrumentation and Measurement* [2019].
6. Mohammad Ahmadlou, Mahmoud Reza Delavar, **Anahid Basiri**, and Mohammad Karimi. "A Comparative Study of Machine Learning Techniques to Simulate Land Use Changes." *Journal of the Indian Society of Remote Sensing*: 1-10 [2019].
7. Fiona Marshall, **Anahid Basiri**, Mark Riley, Tom Denning, John Gladman, Amanda Griffiths, Sarah Lewis, "Scaling the Peaks Research Protocol: understanding the barriers and drivers to providing and using dementia friendly community services in rural areas: a mixed methods study", *BMJ Open*, [2018].
8. Amin Bassiri, Mohammadreza Asghari Oskoei, and **Anahid Basiri**. "Particle Filter and Finite Impulse Response Filter Fusion and Hector SLAM to Improve the Performance of Robot Positioning." *Journal of Robotics* [2018].
9. **Anahid Basiri**, Elena Simona Lohan, Terry Moore, Adam Winstanley, Chris Hill, Pekka Peltola, Pouria Amirian, Pedro e Silva, "Indoor Location Based Services Challenges, Requirements and Usability of Current Solutions", *Computer Science Review*, Doi: 10.1016/j.cosrev.2017.03.002, [2017].
10. Pouria Amirian, Francois van Loggerenberg, Trudie Lang, Arthur Thomas, Rosanna Peeling, **Anahid Basiri**, Steven Goodman, "Using big data analytics to extract disease surveillance information from point of care diagnostic machines", *Pervasive and Mobile Computing*, DOI: 10.1016/j.pmcj.2017.06.013, [2017].
11. Pouria Amirian, **Anahid Basiri**, "Enabling Urban Analytics in Smart Cities: Intersection of IoT, Data Science and Geospatial Data", *The Data and the City*, Editors Rob Kitchin, Tracey Lauriault, and Gavin McArdle, Routledge publishing, ISBN 9781138222632, [2017].
12. **Anahid Basiri**, Pouria Amirian, Terry Moore, Adam Winstanley, "Making Tourist Guidance Systems More Intelligent, Adaptive and Personalised using Crowd Sourced Movement Data", *Journal of Ambient Intelligence and Humanized Computing*, [2017].
13. **Anahid Basiri**, Elena Simona Lohan, Terry Moore, The impact of Galileo Open Service on the Location Based Services markets: a review on the cost structure and the potential revenue streams, *Multi-Technology Positioning*, pp. 269-281, Springer Publishing [2017].
14. Elena-Simona Lohan, Pedro Figueiredo e Silva, **Anahid Basiri**, Pekka Peltola, Location Based Services Analysis Through Analytical Hierarchical Processes: An e-Health-Based Case Study, *Multi-Technology Positioning*, pp283—301, Springer International Publishing, [2017].
15. **Anahid Basiri**, Pouria Amirian, Peter Mooney, The Use of Crowd-Sourced Trajectories for An Automated OSM Data Entry, *Sensors* 16(9), 1510 [2016].

16. **Anahid Basiri**, Pouria Amirian, Adam Winstanley, Stuart Marsh, Terry Moore, Guillaume Gales, Seamless Pedestrian Positioning and Navigation Using Landmarks, *Journal of Navigation*, Cambridge University Press, Vol. 69, Iss. 01, pp. 24-40, [2016].
17. Pouria Amirian, **Anahid Basiri**, Landmark-Based Pedestrian Navigation Using Augmented Reality and Machine Learning, *Progress in Cartography*. Springer International Publishing, pp. 451-465, [2016].
18. **Anahid Basiri**, Pouria Amirian, Adam Winstanley, Amir Pourabdollah, Mike Jackson, Monika Sester, Terry Moore, OpenStreetMap Data Quality Assurance Using Rules Derived from Tracking Data, *Geo-spatial Information Science*, Vol. 19, Iss. 1, pp.56-68, [2016].
19. **Anahid Basiri**, Pouria Amirian, Stuart Marsh, Terry Moore, "Automatic Detection Of Points Of Interest Using Spatio-Temporal Data Mining", *Journal of Mobile Multimedia*, Vol. 11, No.3&4, pp.193-204, [2015].
20. Pouria Amirian, **Anahid Basiri**, Guillaume Gales, Adam Winstanley and John McDonald, The Next Generation of Navigational Services using OSM data: the Integration of Augmented Reality and Graph Databases, *OpenStreetMap in GIScience: experiences, research, applications*. ISBN: 978-3-319-14279-1, Jokar Arsanjani, J., Zipf, A., Mooney, P., Helbich, M. (eds). Springer Publishing, [2015].
21. **Anahid Basiri**, Terry Moore, Chris Hill, Paul Bhatia, Challenges of Location-Based Services Market Analysis: Current Market Description, *Progress in Location-Based Services 2014*, 273-282, Springer Publishing, [2015].
22. **Anahid Bassiri**, Mohammad R. Malek, Providing Relevant Information in an Ambient Services Using Service Requesters' Logical Area, *Journal of Ambient Intelligence and Humanized Computing*, DOI: 10.1007/s12652-012-0145-8, [2014]
23. **Anahid Basiri**, Adam Winstanley, Pouria Amirian, The Use of Quick Response (QR) codes in Landmark-Based Pedestrian Navigation, *The International Journal of Navigation and Observation*, Volume 14, doi: 10.1155/2014/897103, [2014].
24. **Anahid Basiri**, Elena S Lohan, Pedro e Silva, Pekka Peltola, Chris Hill, Terry Moore, Overview of positioning technologies from fitness-to-purpose point of view, *Localization and GNSS (ICL-GNSS)*, doi: 10.1109/ICL-GNSS.2014.6934176, pp 1-7, IEEE publishing, [2014].
25. **Anahid Basiri**, Adam Winstanley, Pouria Amirian, Terry Moore, Chris Hill, Spatial uncertainty management in pedestrian navigation, *Lecture Notes in Geoinformation and Cartography, Principle and Application Progress in Location-Based Services*, 343-355 Editors Chun Liu, Springer publishing, [2014].
26. **Anahid Basiri**, Pouria Amirian, Automatic Point of Interests Detection Using Spatio-Temporal Data Mining Techniques over Anonymous Trajectories, *Computational Science and Its Applications–ICCSA, Part IV, Lecture Notes in Computer Science* ISBN 978-3-319-09146-4, pp 185-198, Springer publishing, [2014].
27. **Anahid Basiri**, Pouria Amirian, Adam Winstanley, Use of Graph Databases in Tourist Navigation Application, *Computational Science and Its Applications–ICCSA, Part IV, Lecture Notes in Computer Science* ISBN 978-3-319-09146-4, pp 663-677, Springer publishing, [2014].

28. Pouria Amirian, **Anahid Basiri**, Adam Winstanley, Evaluation of Data Management Systems for Geospatial Big Data, Computational Science and Its Applications–ICCSA, Part IV, Lecture Notes in Computer Science ISBN 978-3-319-09146-4, pp 678-690, Springer publishing, [2014].
29. **Anahid Bassiri**, Mohammad R. Malek, Pouria Amirian, Ambient Shopping Advertisement Using Rough Service Domain, International Journal of Ambient Intelligence and Smart Environment, IOS Press, ISSN 1876-1372, p. 95-105, 2012
30. Pouria Amirian, **Anahid Bassiri** and Ali Alesheikh, Standard-based, Interoperable Services for Publishing Urban Services Data, Journal of Computers, Environment and Urban System, 34, [2010].
31. **Anahid Bassiri**, Mohammad R. Malek, Ali A. Alesheikh, Rough Qualitative Spatial Reasoning, Computational Science and Its Applications–ICCSA, Lecture Notes in Computer Science, ISSN: 0302-9743, pages: 479-488, [2009].
32. **Anahid Bassiri**, Mohammad R. Malek, Ali A. Alesheikh, Pouria Amirian, Rough Temporal Relationships between Intervals Computational Science and Its Applications–ICCSA, Part IV, Lecture Notes in Computer Science, ISSN: 0302-9743, pages: 543- 561, [2009].
33. **Anahid Bassiri**, Mohammad R. Malek, Ali A. Alesheikh, Rough Spatio-temporal Topological Relationships, Computational Intelligence in Decision and Control published by World Scientific Publisher ISI Indexed, ISBN-13:978-981-279-946-3, [2008].
34. **Anahid Bassiri**, Ali A. Alesheikh, Spatio-temporal Topological Relationship Based on Rough Set, IEEE Computer Society Press, IEEE Cognitive Informatics, [2008].
35. Pouria Amirian, **Anahid Bassiri**, Ali Alesheikh, Sharing and Accessing Geospatial Data through a Service Oriented Solution, Lecture Notes on Geo-Information, Multidimensional Mobile Data, Springer publishing, [2009].
36. Pouria Amirian, **Anahid Bassiri** and Ali Alesheikh, Integrating Interoperable Services and XML Database for Publishing Urban Services Data, Lecture Notes on Geo-Information, Multidimensional Mobile Data Springer publishing, [2009].
37. **Anahid Bassiri**, Mohammad R. Malek, Here in the Context of Mobile Information Environment, Springer LNGC, ISPRS Multidimensional Mobile Data, [2009].
38. Pouria Amirian, **Anahid Bassiri**, Ali A. Alesheikh, Accessing Urban Services Data Using Interoperable Services and XML Database, IEEE Computer Society Press, CISIS, [2010].

### **3. Books and Special Issues:**

1. Guest editor of International Journal of Geographical Information Science (**IJGIS: Special Issue on Crowd-sourced Geospatial Data Biases and Quality Issues**: Guest editors: **Anahid Basiri**, Muki Haklay, Giles Foody, Peter Mooney)
2. **Anahid Basiri**, “**Location-Based Service Future Directions**”, Springer Publishing-Geotechnologies and the Environment Book Series, G.Z. Landolf (Ed), in press.
3. **Editor in Chief of Journal of Navigation** Vol 72 and 73 all issues.

### **4. Conference Papers**

1. Terry Lines, **Anahid Basiri**, “Simulating and Modelling the Signal Attenuation of Wireless Local Area Network for Indoor Positioning”, ACM SIGSPATIAL International Workshop on Geospatial Simulation (GeoSim'19), [2019].

2. Terry Lines, **Anahid Basiri**, "Signal Attenuation Modelling in WLAN Positioning", URSI Convention on Radio Science, [2019].
3. **Anahid Basiri**, Muki Haklay, and Zoe Gardner, "The Impact of Biases in the Crowdsourced Trajectories on the Output of Data Mining Processes." Association of Geographic Information Laboratories in Europe (AGILE), [2018].
4. Jingjin Yan, Gengen He, **Anahid Basiri**, Criag Hancock, "Indoor Pedestrian Dead Reckoning Calibration by Visual Tracking and Map Information". IEEE Ubiquitous Positioning, Indoor Navigation and Location-Based Services (UPINLBS) [2018].
5. Amin Basiri, MohammadReza Oskoei, **Anahid Basiri** and Alireza Shahri, "Improving Robot Navigation and Obstacle Avoidance using Kinect 2.0," 5th RSI International Conference on Robotics and Mechatronics (ICRoM), pp. 486-489  
doi: 10.1109/ICRoM.2017.8466145 [2018]
6. Jingjin Yan, Gengen He, **Anahid Basiri**, Criag Hancock, "Vision-aided indoor pedestrian dead reckoning," 2018 IEEE International Instrumentation and Measurement Technology Conference (I2MTC), Houston, TX, pp. 1-6.  
doi: 10.1109/I2MTC.2018.8409599 [2018].
7. Zoe Gardner, Didier Leibovici, **Anahid Basiri**, Giles Foody, "Trading-off location accuracy and service quality: privacy concerns and user profiles", International Conference on Localisation and GNSS (ICL-GNSS 2017), Nottingham, UK, [2018].
8. Pouria Amirian, **Anahid Basiri**, Jeremy Morley, Predictive Analytics for Enhancing Travel Time Estimation in Navigation Apps of Apple, Google and Microsoft, 9th ACM SIGSPATIAL International Workshop on Computational Transportation Science, California, USA [2016].
9. **Anahid Bassiri**, Pouria Amirian, Adam Winstanley, The Usability Analysis for the Use of Augment-ed Reality and Visual Instructions in Navigation Services, ISBN 978-1-907075-02-5, International Conference on Location Based Services LBS2016 [2016].
10. **Anahid Basiri**, Andrew Wood, Chris Brignell, Zoe Gardner, Mike Jackson, Robert John, Christian Wagner, Didier Leibovici, Spatial Uncertainty in the obfuscation of location data for the purpose of privacy protection, International Conference on Location Based Services LBS2016 [2016].
11. **Anahid Basiri**, Terry Moore, Chris Hill, and Paul Bhatia, The Non-Technical Challenges to The Location Based Services Markets: The Users' Concerns Are Being Ignored?, International Conference on Localisation and GNSS (ICL-GNSS 2016), Barcelona, Spain [2016].
12. Pouria Amirian and **Anahid Basiri**, Geospatial Big Data or Big Geospatial Data?, GISRUUK2016, Greenwich, UK [2016].
13. Pedro Figueiredo e Silva, **Anahid Basiri**, Elena Simona Lohan, Pekka Peltola, James Pinchin, Terry Moore, Chris Hill, On the Impact of Intra-System Interference for Ranging and Positioning with Bluetooth Low Energy, 5th International Workshop on Mobile Entity Localization and Tracking in GPS-less Environments, 23rd ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems, Seattle, USA, [2015].
14. Pouria Amirian, **Anahid Basiri**, Francois Van Loggerenberg, Terry Moore, Trudie Lang and Margaret Varga, Intersection of Geospatial Big Data, Geocomputation and Cloud

Computing, ICA European Symposium on Cartography (EuroCarto2015), Vienna, Austria, [2015].

15. **Anahid Basiri**, Terry Moore, Chris Hill, The Privacy Concerns in Location Based Services: Protection Approaches and Remaining Challenges, The 9th International Symposium on Mobile Mapping Technology (MMT2015), Sydney, Australia, [2015].
16. **Anahid Basiri**, Pekka Peltola, Pedro Figueiredo e Silva, Elena Simona Lohan, Terry Moore, Chris Hill, Indoor Positioning Technology Assessment using Analytic Hierarchy Process for Pedestrian Navigation Services, International Conference on Localization and GNSS (ICLGNSS 2015), doi 10.1109/ICL-GNSS.2015.7217157, Gothenburg, Sweden, [2015].
17. **Anahid Basiri**, Terry Moore, Chris Hill, Paul Bhatia, Challenges for Indoor Location Based Services, International Conference on Location Based Services (LBS 2015), Augsburg, Germany, [2015].
18. **Anahid Basiri**, Terry Moore, Chris Hill, Paul Bhatia, Challenges of Location-Based Services Market Analysis: Current Market Description, International Conference on Location Based Services (LBS 2014), Vienna, Austria, [2014].
19. **Anahid Basiri**, Elena Simona Lohan, Pedro Figueiredo e Silva, Pekka Peltola, Chris Hill, Terry Moore, Overview of positioning technologies from fitness-to-purpose point of view, International Conference on Localization and GNSS (ICL-GNSS), Helsinki, Finland, [2014].
20. **Anahid Bassiri**, Pouria Amirian, Adam Winstanley, Why Pedestrian Navigation is not Widely Used?, Mobile Ghent '13, Ghent, Belgium [2013].
21. **Anahid Basiri**, Adam Winstanley, Pouria Amirian, Uncertainty Handling in Navigation Services Using Rough Set Theory, Conference On Spatial Information Theory (COSIT 2013), North Yorkshire, UK, [2013].
22. Pouria Amirian, Adam Winstanley and **Anahid Basiri**, Using Graph databases in LBS applications: Storing and Processing Navigational and Tracking data, Mobile Ghent 2013, Ghent, Belgium, [2013].
23. **Anahid Bassiri**, Pouria Amirian, Adam Winstanley, Navigation services using knowledge extracted from tracking data, Mobile Ghent '13, Ghent, Belgium, [2013].
24. **Anahid Basiri**, Adam Winstanley, Pouria Amirian, Landmark-based pedestrian navigation, Geographical Information System Research (GIS RUK), Liverpool, UK, 2013.
25. Pouria Amirian, Adam Winstanley, **Anahid Basiri**, NoSQL storage and management of geospatial data with emphasis on serving geospatial data using standard geospatial webservices, Geographical Information System Research (GISRUK), UK, [2013].
26. **Anahid Basiri**, Pouria Amirian, Adam Winstanley, Spatio-temporal Data Mining in Medical Images, Third International Conference on Digital Information and Communication Technology and its Applications (DICTAP2013), Czech Republic, [2013].
27. Pouria Amirian, Adam Winstanley and **Anahid Basiri**, Efficient Online Sharing of Geospatial Big Data Using NoSQL XML Databases, The 4th International Conference on Computing for Geospatial Research and Application (COM.Geo 2013), USA, [2013].
28. Pouria Amirian, **Anahid Basiri** and Adam Winstanley, Efficiency of Graph DB in context-aware location-based computing and services, Conference On Spatial Information Theory (COSIT 2013), North Yorkshire, UK, [2013].

29. **Anahid Bassiri**, Adam Winstanley, Monika Sester, Pouria Amirian, Colin Kuntzsch, Uncertainty handling in navigation services, 3rd ACM SIGSPATIAL International Workshop on Querying and Mining Uncertain Spatio-Temporal Data, [2012].
30. Pouria Amirian, **Anahid Bassiri** and Ali Alesheikh, Interoperable Exchange and Share of Urban Services Data through Geospatial Services and XML Database, IEEE on Intelligent and Software Intensive Systems 2010 (CISIS 2010), [2010].
31. **Anahid Bassiri**, Pouria Amirian, Police Cars Movements Modelling, Analysis and Presentation, Third International Cartography Associations (ICA) workshop, Sweden, [2009].
32. **Anahid Bassiri**, Ali A. Alesheikh, Mohammad R. Malek, spatio-temporal object modelling in fuzzy topological spaces with applications to land cover changes, ISPRS [2008].
33. **Anahid Bassiri**, Ali A. Alesheikh, Mohammad R. Malek, spatio-temporal Topology in fuzzy logic, Map India [2008].
34. Mohammad H. Vahidnia, Ali A. Alesheikh, **Anahid Bassiri**, Fuzzy Analytical Hierarchy Process ISPRS [2008].
35. **Anahid Bassiri**, Ali A. Alesheikh, Design and maintenance for Gas network, Map Asia [2007].
36. **Anahid Bassiri**, Ali A. Alesheikh, Choosing the appropriate method for interpolation and DTM generation, Map Asia [2007].
37. **Anahid Bassiri**, Ali A. Alesheikh, Visibility of landmarks in urban planning, Map Asia [2007].

## 5. Funding:

### Awarded:

- **UKRI Future Leaders Fellowship (£1,184,608)** (PI)- Indicative Data Science: 3D Model of cities using GNSS degradation May 2019- April 2023 (4+3 years)
- **ERC Staring Grant** (Col/Beneficiary) - UrbanOccupationsOETR: Industrialisation and Urban Growth from the mid-nineteenth century Ottoman Empire to Contemporary Turkey in a Comparative Perspective, € 1,497,500, Grant agreement ID: 679097, Oct 2016- March 2022
- **Royal Society Research Grant** (PI)- Crowdsourced GNSS Data for Indoor Positioning (£5,760), March 2018 – Current
- **Alzheimer's Society UK:** (Co-Investigator) Scaling the Peaks; Understanding the barriers and drivers to providing and using dementia friendly community services in rural areas: the impact of location, cultures and community in the Peak District National Park on sustaining service innovations, July 2015- June 2019, Ref; AS-SF-14-005 (£279,112)
- **UCL Seedcorn Small Grant Scheme:** Mapping The Implications Of Ai In Educational Development Discourses: Public-Private Partnerships -Biases in AI for education in Global South-east Education (Co-I), UCL Institute of Education Jan 2019 – July 2019 (£3000)

- **UCL Grand Challenges Dynamics of Globalisation:** The Future Of Residential Interrelationship In The UK: The Case Study Of The Israeli And The Iranian Communities (PI), Jan 2019 – July 2019 (£2,500)
- **Equality, Diversity, Inclusion Initiatives:** Career Development for Academic with Caring Responsibilities, Dec 2017 – July 2018, UCL and Marie Curie Alumni, (£660)
- **EPSRC ICASE awarded studentship with OS:** Improving Quality of OS Transport Data Using Spatio-temporal Patterns of Movements, Sept 2017- Sept 2021, (£89,765)
- **Spatio-Temporal Knowledge Discovery of Geospatial Big Data- Primary Application Domain:** URBAN – urban science, transportation, logistics: (PI) Microsoft Azure Data Science Research, May 2016-May 2017 (USD \$20,000)
- **The Use of Spatial uncertainty for the Purpose of Privacy Protection:** (PI) Modelling Uncertain Word Research Priority Area (RPA) The University of Nottingham, May 2016- July 2017 (£6,300).
- **EPSRC Data Driven Discovery Research Priority Area project:** The Challenges and Solutions to the Management and Analysis of Geospatial Big Data, Sept 2015- March 2016, (£2,700).
- **Cluster2020 project:** Big Data Cluster research Project (Co-Investigator), The University of Nottingham Internal funding program, October 2014- March 2016, (£5,900).
- **UK Space Agency- Space for All:** Community Award Scheme (Co-Investigator) Revealing the Martian Landscapes through Linked Physical and Virtual Models (£6,000).
- **Faculty for the Future Grants** (Principle Investigator), Schlumberger Foundation, Trajectory mining to extract travel behaviour patterns, [November 2014], (Fellowship not taken up to be able to accept EU Marie Curie Fellowship), (US\$ 40,000)
- **Advance Award–Women in Science Fellowship** (Principle-Investigator), Science Foundation of Ireland (SFI) (Navigational Suggestion Inference Using Crowd-Sourced Tracking Data Analysis, [August 2013] (Fellowship not taken up to be able to accept EU Marie Curie Fellowship), €117,803.

## **6. Teaching Experience:**

- Digital Visualisation, MSc/MRes course of Digital Visualisation, Centre for Advanced Spatial Analysis, UCL [2018- 2020].
- Geospatial Information Systems and Science, MSc/MRes course of Smart City and Digital Visualisation, Centre for Advanced Spatial Analysis, UCL [2018- 2019].



- **Mapping Science CEGEG034** Department of Civil, Environmental and Geomatic Engineering, University College London, MSc Course of Civil Engineering (with Surveying), deliver, 6 hours on VGI (Design, Deliver, Exam Setting, and Marking), Nov-Dec 2017.
- **GIS Programming Department of Geography and Environment**, The University of Southampton, MSc Course of GIS, 2 lectures, Oct 2017.
- **Spatial Decision Making** The School of Geography, the University of Nottingham, MSc course of Geographical Information Science, 2 lectures, Oct 2016.
- **Geospatial Information Services (Spatial Databases and Web mapping)** The School of Geography, the University of Nottingham, MSc course of Geographical Information Science, second semester of 2015-2016. (Design, Deliver, Exam Setting, Assessment, Marking)
- **Fundamentals of Geographical Information Science** The School of Geography, The University of Nottingham, MSc course of Geographical Information Science, the first semester of 2015-2016.
- **Spatial Databases**, The Department of Computer Science, Maynooth University, Ireland, MSc course of Geospatial Information Systems and Undergraduate of Computer Science, [September 2012 – December 2012]. (Design, Deliver, Exam Setting, Assessment, Marking)
- **Web Information Processing**, The Department of Computer Science, Maynooth University, Ireland, Undergraduate of Computer Science, [September 2012 – December 2012]. (Design, Deliver, Exam Setting, Assessment, Marking)
- **Principles of GIS**, National Centre of Geo-computation (NCG), Maynooth University, Ireland, MSc Course of Geospatial Information Science, [January 2013- May 2013]. (., Deliver, Exam Setting, Assessment, Marking)
- **Web Mapping and GIS programming**, (China-Ireland) Summer School, Maynooth University, Ireland [May 2012- September 2012]. (Design, Deliver, Exam Setting, Assessment, Marking)
- **Land Surveying, Earth Observation, Satellite Positioning** (China-Ireland) Summer School, Maynooth University, Ireland [May 2012- September 2012]. (Design, Deliver, Exam Setting, Assessment, Marking)

## **7. Supervision and co-supervision:**

### Research fellows/associates:

- Line manager of 4 Researcher fellows

### Current PhD students:

- Primary Supervisor of 3 PhD students at Centre for Advanced Spatial Analysis (Paul Mullins- EPSRC-funded, Melda Salhab funded by UCL Overseas Research Scholarship awardee, Dining Liu one self-funded)
- Co-supervisor of a PhD student in Mobile GIS, Ningbo Campus, The University of Nottingham [2017-successful viva in Dec 2020 with minor corrections]

Graduated:

- Co-supervisor of a PhD student in Health GIS, institute of Mental Health, The University of Nottingham [2016-2017]
- (Co-)supervisor of a PhD student of Spatial Information Science, the University of Melbourne, Australia [2015-2017]
- Supervisor of 27 MSc Students at CASA-UCL, University of Nottingham, Maynooth University [2015-2019]

## **8. Awards and Achievements:**

- **Editor in Chief of Journal of Navigation**
- **Associate Editor of IET Smart Cities**
- **Guest Editor of International Journal of Geographical Information Science** (Special Issue on Crowd-sourced Geospatial Data Biases and Quality Issues Guest editors: Anahid Basiri, Muki Haklay, Giles Foody, Peter Mooney)
- **EU Role Model for Mobility of Women in Science (2018)**
- **Best Presentation award** of 23rd ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems, 5th International Workshop on Mobile Entity Localization and Tracking in GPS-less Environments (MELT 2015), Seattle, Washington, USA [2015].
- **Elite Student** of the K.N.Toosi University, Tehran, Iran [2010].
- **Best Paper award** of MapAsia 2008 Conference, Kuala Lumpur, Malaysia [2008].

## **9. Invited and Keynote Talks:**

- **Keynote at International Conference of Localisation and GNSS (ICL-GNSS 2020)- July 2020**
- **Invited talk at Urban Big Data Centre Seminar- Sept 2020**
- **Keynote at Geospatial Systems CDT Annual Assembly – Sept 2020**
- **Invited talk Bell Edwards Geographic Data Institute, University of St Andrews – Aug 2020**
- **Keynote at Key Drivers of Future Smart Cities on Open Science, Open City, Open Society – Interactions between Science, City and Society -July 2020**
- **Invited talk at Institute of Communications and Connected Systems Seminar – June 2020**
- **Invited Talk at Alan Turing Institute Urban Analytics meet up – May 2020**
- **Keynote talk at international Conference on Networked Complexity: The Case of COVID-19 – June 2020**
- **Panellist on Benchmark event on Back to work: tracking social distancing -May 2020**
- **Invited talk at International Centre for Mathematical Sciences (ICMS) Seminars – May 2020**
- **Keynote talk at International Workshop on Networks and Urban Systems, University of Greenwich (July 2019)**

- **Invited Talk at Leibniz Institute of Ecological and Regional Development** (May 2019)
- **Keynote talk at DELTA Autumn Workshop 2019**, Tampere University, Finland (Oct 2019)
- **Invited talk at International Navigation Conference - Cognitive Navigation 2018** (November 2018)
- **Metadata and Data Usability in the Era of Big Geospatial Data**, University College London, UK [2016].
- **Navigational Knowledge Extraction from Geographic Trajectory Data**, University of Melbourne, Australia [2015].
- **Career Development Support: Women in Science and Engineering (WISE)**, OxFEST, University of Oxford, UK [2015].
- **LBS Market Analysis**, GNSS Education Network for Industry and Universities (GENIUS), University of Nottingham, UK [2015].
- **Pedestrian Navigation: challenges and opportunities**, University of Heidelberg, Germany [2013].
- **Keynote: Spatio-temporal data mining**, University of Ostrava, Czech [2013].
- **Uncertainty handling in ambient services**, University of Salzburg, Austria [2011].

## **10. Academic Research Projects:**

- Indicative Data Science: Unavailability of Data as Data [2019- Now]
- Scaling the Peaks; Understanding the barriers and drivers to providing and using dementia friendly community services in rural areas: the impact of location, cultures and community in the Peak District National Park on sustaining service innovations [2014 – Now]
- Developing markets for Location Based Services (LBS), Multi-technology Positioning Professionals (MULTI-POS), Nottingham Geospatial Institute, The University of Nottingham [2013-2015]
- Spatio-temporal data (trajectories data) mining to extract unusual movement behaviour, Institute of Cartography and Geoinformatics (IKG), Leibniz University of Hannover, Germany [August 2012 – November 2014].
- Development of car, pedestrian and wheelchair routing and navigation services for StratAG (Strategic Research in Advanced Geotechnologies) and National Center for Geocomputation, Maynooth, University, Ireland [2012-2013].
- eCampus for StratAG (Strategic Research in Advanced Geotechnologies) and National Center for Geocomputation, Maynooth, University, Ireland [2012-2013]

## **11. Academic-Industry Partnership Projects:**

- Scaling the Peaks; Understanding the barriers and drivers to providing and using dementia friendly community services in rural areas: the impact of location, cultures and community in the Peak District National Park on sustaining service innovations [2014 – Now]
- Self-Positioning Network project, u-blox AG Company and the University of Nottingham, [2015-2017].

- Secondment at AVEA, telecommunication company, Istanbul, Turkey, [2014-2015].
- Development of Mobile application and services for Kermanshah Cultural Inheritance, Handicrafts and Tourism Organization, Iran [2011-2012].
- Design and Implementation of Spatial Database of Western regional Electric Company of Iran [2010-2011].
- Design and Development of Enterprise GIS for Kermanshah Local Government (desktop and web application and spatial database), Iran [2009-2010].
- GeoServices Portal for Municipality of Tehran, Iran [2009-2010].
- Design and Development of GIS for Isfahan Department of Environment, Isfahan, Iran [2009 -2010].
- Design and Development of Enterprise GIS for Tehran Municipality, Tehran, Iran [2008-2011].
- Design and Development of Spatial Database for waste management department of the Environment Protection Organisation, Tehran, Iran [2009 -2010].

## **12. Organizing Events:**

- International Conference on Location Based Services (LBS 2020) Chair
- UCL-CASA seminars series [2018-2020].
- Chair of a special session at Royal Geographical Society (RGS-IBG 2018) on New Forms of Data in Research [2018].
- Co-chair of International Conference on Localisation and GNSS (ICL-GNSS 2017) [2017].
- Technical Program Committee of International Conference on Localisation and GNSS (ICL-GNSS 2016).
- Location Privacy and Spatial Uncertainty Seminar, Funded by LOcationObfuscation Project, May 2017.
- Cluster2020 Workshops on Big data, fully covered by the grant of the Cluster2020 project, The University of Nottingham [2014-2016].
- EPSRC Big Data-D<sup>3</sup> workshops at UCL, and the University of Oxford: six workshops on big geospatial data analytics to hosted by the three partners of the project; i.e. the University of Nottingham (four workshops about Engineering aspects/applications of Geospatial data), University College London (one workshop about metadata and social applications of big geospatial data) and the University of Oxford (one workshop on Medical applications of big geospatial data) [2015-2016].
- Fortnightly Seminars of the Nottingham Geospatial Institute (NGI), the University of Nottingham [2015-2016].
- OxFest 2015: as the representative of Women In Science and Engineering (WISE), University of Oxford [2015].