

Dr. Kulsum Fatima

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Education

- 2023 **PhD** in Environmental Design, UBC, Canada
- 2012 **PGDRE** in Renewable Energy, TERI University, New Delhi, India
- 2010 **Master of Architecture** (Building Services), JMI University, New Delhi, India
- 2008 **Bachelor of Architecture**, JMI University, New Delhi, India

Experience

- 2010-Present **Assistant Professor**, Faculty of Architecture & Ekistics, Jamia Millia Islamia, New Delhi, India
- 2009-2010 **Lecturer**, MBIT, Directorate of Training & Technical Education, Govt. Of NCT Delhi, India
- 2008-2009 **Project Manager**, Eco3design Consultants (Pvt.) Shapurjat, New Delhi, India
- 2008 **Architect Intern** at Space Design Consultant Pvt. Ltd. Greater Kailash – II, New Delhi (Jan-May2008)

Research Interest and Skills

Sustainable design applications, green-certified communities, buildings and systems, Life cycle assessment (LCA), Sustainable water management, design applications promoting United Nations Sustainable Development Goals (UNSDG)

Research/Scientific Committees

- 2022-23 Guest Editor for Landscape Editorial Board, Canadian Society for Landscape Architects, Canada
- 2022 Reviewer Singapore International Water Week (SIWW) 2022 Scientific Committee
- 2019-22 Member Standing Committee on Landscape and Environmental Design – AFB40, Transportation Research Board (TRB), the National Academy of Sciences, Engineering and Medicine, Washington, DC, USA (Term 2019-2022)
- 2018 Invited Member for Stakeholder Engagement Committee (SEC) Bow River Basin Council, Canada
- 2017 Thematic Lead for Water and Member Sectoral Steering Committee for the Habitat Sector, Technology Information, Forecasting and Assessment Council (TIFAC), Department of Science and Technology, Government of India.

Events Organized/ experience in academic event planning and coordination

International

- 2024 Organizing Chair for International Conference on **Climate Change and Resilience in Architecture** (CCRA2024) at Jamia Millia Islamia, New Delhi, India (24-26 July 2024)
- 2019 Member Planning & organizing Committee for **SDG Summit**, Intersectionality & the SDG’s, UBC, Canada
- 2017 Co-coordinator **International Seminar on Water Pollution & Health** jointly organized by Jamia Millia Islamia & University College of London, UK at Jamia Millia Islamia, New Delhi 27th & 28th July 2017
- 2017 Co-coordinator **International Workshop on Impact of Water Quality on Human Health & settlements** jointly organized by Jamia Millia Islamia & University College of London, UK at Jamia Millia Islamia, New Delhi, 6th April 2017
- 2016 Coordinator & Co-chair **International Workshop on Inclusive Cities** jointly organized by Dept. Architecture, JMI & San Diego State University, USA at Jamia Millia Islamia, New Delhi (19th & 20th December 2016)
- 2011 Organizing Secretary, **International Conference on Islamic Art & Architecture**, F/O Architecture & Ekistics, JMI, India

National

- 2024 Organizing Secretary for a Two-day workshop on MEPF (Mechanical, Electrical, Plumbing, and Fire services) Services Design of Hospital Buildings at the Department of Architecture, Jamia Millia Islamia, New Delhi, India (11-12 Nov 2024)
- 2021 Organized 4 special lectures for M. Arch BS scheduled from 16th - 19th November 2021:
 - 1. Lecture 1: Green building promotion & adoption in India - A Building Services (BS) perspective
 - 2. Lecture 2: Retrofit Decisions for BS–Achieving Energy Efficiency in Existing Buildings
 - 3. Lecture 3: Contemporary technologies in MEP for green building services
 - 4. Lecture 4: GIS applications to evaluate building services for green infrastructure
- 2021 Organized extension lecture for M. Arch BS “Fire services design in high-rise buildings” (10th May 2021)
- 2021 Organized, moderated & compiled the B. Architecture Student Poster competition at Dept. Architecture 22-29Oct2021
- 2017 Coordinator Sketching Workshop during the Annual Fest of Department of Architecture 21st – 24th March
- 2015 Celebrating Kalam- 84th Birth Anniversary of APJ Abdul Kalam at Faculty of Architecture & Ekistics, JMI
- 2014 Continuum 2014 – Annual Student Exhibition at 10th Foundation Day F/O Arch. & Ekistics, JMI
- 2014 Habib Rehman Lecture Series – II, JMI, New Delhi, India
- 2013 V National Seminar on Architecture for Masses, JMI, New Delhi, India
- 2013 Habib Rehman Lecture Series – I, JMI, New Delhi, India
- 2011 Landscape Journal Exhibition at Dept. Architecture, JMI

Student Exchange Workshop

- Feb2016 Student Workshop on “Traditional Architecture of Kerala” at Laurie Baker International School of Habitat Studies (LaBISHaS) An autonomous subsidiary of the Kerala State Nirmithi Kendra (KESNIK), Govt. of Kerala, KESNIK Campus, PTP Nagar, Thiruvananthapuram, Kerala
- Feb2015 Student Workshop on “Urbanization & Development in Bangalore” at Architecture Department, M.S. Ramaiah Institute of Technology, Bangalore
- Feb2014 Student Workshop on “Traditional Laurie Baker Brick Jali Construction Techniques” at College of Architecture, Trivandrum
- Feb2013 Student Workshop on Green Buildings at PHD Chamber of Commerce Conference

Administrative Experience

- 2021-2025 **Faculty Ambassador** for Climate Studio Educational Ambassador Program by Solemma

2021-2025	Faculty Advisor for Solar Decathlon India Design competition, Team: NEXA, division: On-site construction worker housing
2020-21	JTA Scholarship Referee , to assess the applicants for their need-cum-merit credentials for the Jamia Teachers Association scholarship
2020-21	Member, Syllabus Revision Committee for M. Arch (Building Services)
2020-21	Course coordinator, Master's in Architecture (Building Services) , Dept. Architecture, Jamia Millia Islamia
2016-2017	Networking Coordinator - Global Jamia Alumni Network, Jamia Millia Islamia
2016-2017	Member , Faculty Committee, Dept. Architecture, Jamia Millia Islamia
2016-2017	Member , Administrative Committee, GJAN, Jamia Millia Islamia
2015-2016	Coordinator Heritage Field Study Visit at Jaipur, Agra, Fatehpursikri & Sikandara, and in Delhi, Mehrauli, Hauz Khas, Tughlaqabad Fort, Red Fort, Purana Qila & Old Delhi
2015	Member , Hospitality Committee for NAAC Visit 2015, Jamia Millia Islamia, New Delhi
2015	Assistant Centre Superintendent , University Entrance Examinations, Centre No.5, New University Polytechnic Building, Jamia Millia Islamia, New Delhi
2015	JMI Observer , B. Tech (Rescheduled) Entrance Exam 2014 at Glorious Public School, Sec-9, Rohini, Opp. Dharam Kunj Appt. Near Rohini West Metro Station, New Delhi-110085
2014	Member , Stage Decoration Committee for Annual Convocation 2014, Jamia Millia Islamia, New Delhi
2014	Assistant Centre Superintendent , B.Tech. Entrance Test, Centre No.54, Ambedkar Institute Of Technology, Geeta Colony, East Delhi, Delhi, India
2013-2015	External Examiner , Lingaya’s School of Architecture, Faridabad, India
2013-2017	Course Coordinator 3 rd Yr. B. Architecture, Dept. Architecture, Jamia Millia Islamia
2011-2017	Educational Tour Incharge , 3 rd Yr. & 2 nd Yr. B. Architecture, Jamia Millia Islamia
2010-Present	Member Board of Studies , Dept. Architecture, Jamia Millia Islamia
2010-Present	Member Jamia Teachers Association , Jamia Millia Islamia
2010-2017	Expert Evaluator for IGNOU – Indira Gandhi National Open University

Training Programs Attended

Nov-Dec 2021	Water Audit and Conservation in Industries organized by Centre for Science & Environment (CSE) 22 nd Nov-5 th Dec 2021
14-20July2021	FDP on Addressing Livability in a Post-Pandemic World organized by Amity School of Architecture & Planning in collaboration with Center for Science & Environment, New Delhi, India
15-21Jan2021	Workshop on “E-Content Development and Online Pedagogy” UGC-Human Resource Development Centre, north-eastern Hill University, Shillong, India
17-23Dec2020	Workshop on Research Methodology, UGC-Human Resource Development Centre, Jamia Millia Islamia, ND, India
April 2017	Participation in field excursion held by Professor Jurgen Breuste, Chair of Urban & Landscape Ecology at the University of Salzburg, Austria on “Tropical Landscape Ecology in Srilanka”
Nov 2016	Global Initiative for Academic Networks (GIAN) workshop on ‘Global Cities Sustainability and Management of the Urban Ecosystem’ held in the Dept. of Geography, Faculty of Natural Sciences, JMI, New Delhi (1-5 November 2016)
Sep2015	Training program of Master Trainer organized by Bureau of Energy Efficiency under the United Nations Development Project - GEF project “Energy Efficiency Improvements in Commercial Buildings” at MNIT Jaipur
June 2015	NRDMS, DST Funded Training Programme on “Geospatial Technologies” organized by Department of Geography, JMI
Dec 2014	110 Orientation Program at UGC – Academic Staff College, Jamia Millia Islamia, New Delhi
May-July 2014	Summer Research Faculty Fellow at Indian Institute of Technology, Indian Institute of Technology Delhi (Project - Delhi Drainage Master Plan 2031)
June 2013	Building Sustainable Cities: Water Hazards Vulnerability Scenario in Dwarka– Scenario Building Workshop III organized by the School of Planning & Architecture, New Delhi
July 2013	Building Sustainable Cities: Community-Based Adaptation to Water Scarcity in Dwarka – Scenario Building Workshop II organized by the School of Planning & Architecture, New Delhi
Dec12-Jan13	Three Week Special Winter Program at UGC – Academic Staff College, Jamia Millia Islamia, New Delhi
April 2012	Capacity Building of Women Managers in Higher Education at Sarojini Naidu Centre for Women’s Studies, JMI & UGC
Feb2011	QIP Short Term Course on Building Integrated Photovoltaic Thermal Organized by Centre for Energy Studies, Indian Institute of Technology, Delhi
Dec 2010	3rd Annual Conference & Expo on Sustainable Urban Transport, Urban Mobility India – Accessible & Inclusive Cities organized by the Institute of Urban Transport & Ministry of Urban Development, India
Sep2010	International Workshop On “Sustainable & Climate Resilient Urban Development” The Rockefeller Foundation, USA Department for International Development (DFID), India

Invited Lectures

June 2022	EDRA53 Health in All Design Conference in Greenville, South Carolina, USA
Nov2021	PhD Workshop at The UAS Conference 2021 organized by Freie Universität Berlin University Alliance for Sustainability, Schwendenerstraße 17, 14195 Berlin
April2017	Third-year Design Crit for CDP Project at City School of Architecture, Kitulwatta Road, Colombo, Sri Lanka
April2017	Urban Environmental Planning & Infrastructure concerning Inclusive Cities at Dept. Geography, University of Peradeniya, Peradeniya, Srilanka – 21st April 2017
Dec2016	“Solar Passive Architecture” at AGDPRE – Teri University , Vasant Kunj, New Delhi
July-Dec 2016	E- Pathshala Lectures for University Grants Commission (UGC) , Government of India: 5 years Plans for Urban Planning in India, Urban Morphology of Jaipur, Urban Morphology of Delhi, Urban Morphology of Chandigarh
April2016	“Solar Passive Architecture & its Application in Indian Climatic Zones” at AGDPRE – Teri University , New Delhi, India
Mar2016	"Technologies for Energy Efficiency & Conservation Opportunities in Building Design" at Department of Architecture, Manipal University, Dubai International Academic City, Dubai, United Arab Emirates (UAE)
April2015	Project Formulation meeting at Indo-French Centre for Groundwater Research at CSIR-National Geophysical Research Institute , Geophysical Research Institute (Council of Scientific and Industrial Research) Hyderabad-500007
Feb2015	“LEED Certification for Green Buildings” at Architecture Department, M S Ramaiah Institute of Technology , Bangalore

Dec2014	“Solar Passive Architecture” at AGDPRE – Teri University , Vasant Kunj, New Delhi
Aug2014	"Sustainable Innovative Technologies in Architecture" School of Built Environment and Development Studies (BEDS), University of Kwazulu-Natal, Howard College Campus, Durban 4041, South Africa
March2014	“Energy Efficiency Strategies” at Faculty of Architecture, College of Engineering, Andhra University, India
March2014	“Strategies in Green Building Design” at School of Architecture, GITAM University, Vishakhapatnam, India

Publications	
May2022	“Biodiversity - stewardship for vital resources”, the fourth Dresden Nexus Conference (DNC) 2022 , co-organized by United Nations University – Institute for Integrated Management of Material Fluxes and Resources (UNU-FLORES), the Leibniz Institute of Ecological Urban and Regional Development (IOER), and the Technische Universität Dresden (TU Dresden), Germany (23-25May2022) <ul style="list-style-type: none"> Paper Title – “Assessing impacts of mediated communication technologies in advancing" session "S15 - Fostering Collective Action: Mainstreaming Biodiversity Across Sectors"
June 2016	Journal of Emerging Technologies and Innovative Research <ul style="list-style-type: none"> Paper Title – Urbanization & its impact on Yamuna River - A case of Jamia Nagar Area, ISSN-2349-5162 (Online) Volume 3 Issue 6, Page No. 1799-1808
October2015	Journal of Emerging Technologies and Innovative Research <ul style="list-style-type: none"> Paper Title – Impact assessment of pseudo urbanization on human health and its remediation using non-conventional technique, ISSN-2349-5162 (Online) Volume 2 Issue 10, Page No. 1748-1798
March2016	Ajman 4rth International Environment Conference, Smart Cities & Green Innovation Organized by Municipality & Planning Department Ajman and Ajman University of Science and Technology, UAE <ul style="list-style-type: none"> Paper Title - Energy Intensive Water Management to Achieve Zero Carbon Footprint – A Case Study in Semi-Arid Region, India ISSN 1927-9566
August2014	XXV World Congress of Architecture International Convention Center Durban South Africa – UIA 2014 Durban <i>Architecture Otherwhere</i> , <ul style="list-style-type: none"> Paper Title- Analysis of Settlement Pattern and the Dynamics of Hydro Environmental Imbalance – Delhi as a Case Study (Page No: 385-407) ISBN 978-0-86970-783-8
June2014	Singapore International Water Week, Water Convention - (Poster Presentation) <ul style="list-style-type: none"> Poster Title: Feasibility & Design of Warehouse with reference to green Building Concept using Rainwater Harvesting System to Control Water Logging and Flooding with Soil Moisture-Semi Arid Region, Sonapat, India (Poster No: 2800865)
April2014	3rd International Conference On “Sustainable Innovative Techniques in Architecture, Civil and Environmental Engineering”- SITACEE at Jawaharlal Nehru University, New Delhi <ul style="list-style-type: none"> Paper Title - Climate Change & Urban Environments - International Laws & Treaties, Published in Journal: Global Sustainability Transitions: Impacts and Innovations (Page No: 138-146) ISBN:978-93-83083-77-0
March2014	17th Rinker International Conference / iiSBE Net Zero Built Environment 2014 Symposiums (<i>Nature-Based Building Performance: Net Zero Energy, Water, Carbon, and Waste</i> , University of Florida, Gainesville, Florida USA <ul style="list-style-type: none"> Paper Title- Strategies for Demand Reduction for Net Zero Water Discharge– A Comparative Analysis of Jamia Millia Islamia (Page No:33-55) ISSN No: 2373-7980
Nov2013	National Conference on Green Building & Rating Systems <ul style="list-style-type: none"> NCGBRS13 Lingaya’s University, Faridabad in association with the Ministry of New & Renewable Energy Paper Title- Sustainable Future Energy Scenarios (Page No:23-30) ISBN:978-81-924212-3-0

Project Works	
Research & Development Projects	
1.	Research Assistant for SSHRC Canada Partnership Engage Grant project 2022-2024 “A Design Thinking Approach to Permitting Challenges for Mixed Use Development that Integrates Aging-in-Place Supportive Living”
2.	PI for Experiential learning research project advancing UNSDG6 funded by the Government of Canada’s Sustainable Development Goals Grant (2020-2021)
3.	(Co-PI) for Delhi Development Authority R&D projects (2018-2021) for the following projects: <ol style="list-style-type: none"> Water management plan for the development of water bodies for the “restoration and rejuvenation of river Yamuna: (i) From old railway bridge to ITO Barrage & (ii) From Nizamuddin Bridge to DND flyover Development of ASITA Eco Tourism Bundh in Restoration and Rejuvenation of River Yamuna
4.	Co-consultant for Municipal Corporation Gurgaon (MCG) project title “Feasibility and design of rainwater harvesting masterplan for Municipal Corporation Gurgaon” during 2018-2020
5.	Co-coordinator - Ghaziabad Rainwater Harvesting Master Plan for Ghaziabad Development Authority, Government of Uttar Pradesh, India, Coordinated by Dept. Civil Engineering, Jamia Millia Islamia, New Delhi, India
Green Certified Building Projects	
1.	DuPont Knowledge Centre, ICICI Knowledge Park, Hyderabad, India - Energy Simulation Model & Daylight Analysis
2.	Peninsula - IT/ITES SEZ, Patancheru, Hyderabad, India - Sun Path Analysis, Renewable Energy Potential Assessment
3.	Gurgaon City Centre, DLF City Phase V, Gurgaon, India - LEED, Pre-Certification Documentation
4.	American Embassy School - New High School Building, New Delhi, India - Energy Model, Daylight Model, and documentation for LEED Green School Certification at USGBC. (FIRST GOLD CERTIFIED LEED SCHOOL IN ASIA)
5.	Royal Netherlands Embassy, New Delhi - Renovations Under IGBC LEED NC
6.	SYMBIOSIS Pune Campus, India - Wind & Solar Assessment Analysis
7.	NIIT Neemrana University Campus, Rajasthan, India - Daylight Simulation Analysis