INDIAN INSTITUTE OF MANAGEMENT AHMEDABAD

Requires

RESEARCH ASSOCIATE (POSTDOCTORAL) at the

BRIJ DISA CENTRE FOR DATA SCIENCE AND ARTIFICIAL INTELLIGENCE

Research Associate (Postdoctoral) position in organizational, economic, public policy, and human resource dynamics of large congregations.

Large-scale religious and cultural gatherings, often attracting millions of participants, present some of the most intricate challenges in management, logistics, economics, public policy, human resources, and data analysis. These events, often held over several days or weeks, involve massive inflows of people, resources, and information, requiring real-time decision-making, optimization of resources, and effective crowd management. The ability to collect and analyze big data offers exciting new opportunities to study, model, and improve the organization and management of such complex events.

We invite applications for a **Research Associate (Postdoctoral)** who will focus on understanding the organizational, economic, public policy, and human resource dynamics of large congregations, along with aspects, such as, logistics optimization, safety improvement, and economic impact assessment. The research will integrate data analysis tools and methodologies with management theory to advance practical solutions for organizing sustaining large public gatherings.

Research Objectives:

The successful candidate will focus on one or more of the following research areas:

Big Data in Crowd Management: Investigate how big data—derived from mobile apps, social media, transportation systems, IoT sensors, and other real-time data sources—can be leveraged to improve the organization, flow, and management of a large-scale event. How can predictive analytics optimize resource allocation, crowd control, and event scheduling?

Human Resources and Volunteer Management: Examine the recruitment, training, and management of volunteers and temporary staff. What strategies are used to mobilize and manage a large workforce, and how are human resources coordinated in real-time during the event?

Economic Impact and Resource Management: Assess the economic implications of large-scale events. What are the costs involved in planning and executing such gatherings? How do these events impact local economies, infrastructure, and communities, both in the short and long term? How are resources such as food, shelter, and sanitation managed, and what strategies are employed to ensure the economic sustainability of the event?

Public Policy and Government Involvement: Investigate the role of public policy in shaping the planning, safety, and regulation of large-scale events. How do government policies and regulations (e.g., security measures, environmental sustainability, public health) evolve in response to such gatherings? What are the public-private partnerships involved, and how do policymakers address challenges such as infrastructure overload, transportation, and environmental concerns?

Crisis Management and Risk Mitigation: Explore strategies for risk assessment and crisis management in the context of large gatherings. How do organizers manage potential crises, from health emergencies to natural disasters, and what lessons can be applied to broader disaster preparedness and public safety management?

Key Responsibilities:

- Collaborate with professors at IIMA in conducting cutting-edge research using quantitative and/or qualitative methods
- Publish research findings in high-impact journals and present results at conferences
- Assist in mentoring graduate students and contribute to the centre's activities

Qualifications:

- A Ph.D. in Statistics, Economics, Public Policy, Machine Learning, Operations Research, Applied Mathematics, or a closely related field
- Experience in handling data
- Proficiency in programming languages such as Python, R, or MATLAB.
- Excellent communication and collaboration skills.

Duration and Location

The position will be initially offered for a period of six months and may be extended depending on performance. IIMA provides access to the library and computer centre for all Research Associates. If selected, the candidate is expected to manage their own accommodation, outside the IIMA campus which is centrally located within the city of Ahmedabad.

Remuneration: Compensation would be commensurate with qualification and experience and as per IIMA guidelines.

Application and deadline: Candidates meeting the above criteria are advised to APPLY ONLINE ONLY. The application attachment file should contain the following materials (as a single consolidated PDF): 1) a cover letter stating educational and relevant work experience, 2) a detailed CV, 3) Contact information for three professional references. Shortlisted candidates will be invited for online or in-person interviews. To apply, please fill out the form using this link. **The deadline of the application is 5th January 2025, 11:59 pm.**

We will only contact candidates shortlisted for an interview. We will not send out letters of rejection to other applicants. Emails asking for status updates will not be entertained.