



Maharshi Dayanand  
University, Rohtak

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Indian Council of  
Social Science Research (ICSSR)

**ICSSR Sponsored 10-Day Research Methodology Course  
on**

**India's Green Economy Transition and Sustainable  
Development: Concepts, Tools and Policy Applications**

**September 8th-18th, 2026**



Organised by

**Department of Economics**

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**

(A State University Established under Haryana Act No. XXV of 1975)

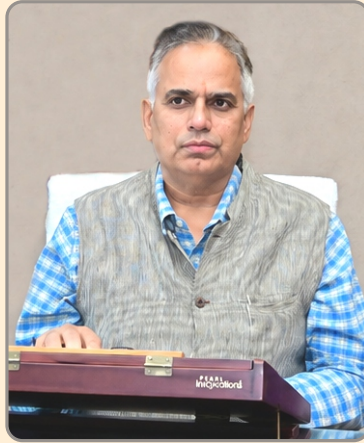
'A+' University Accredited by NAAC

NIRF-2025: 46<sup>th</sup> rank under State Public University Category

Course Director

**Prof. (Direct) Ramphul Ohlan**

Featured in Stanford University World's Top 2% Scientists List 2023, 2024, 2025



**Prof. Milap Punia**  
**Hon'ble Vice-Chancellor**  
**Maharshi Dayanand University, Rohtak**

Prof. Milap Punia is a distinguished academician known for his contributions to regional development, geographic information system, remote sensing, and urban studies. He has made significant contributions to research, academic leadership, and higher education policy with a vision for innovation, inclusivity, and global academic excellence. Under his leadership, MDU is advancing toward excellence in teaching, impactful research, student development, and nation-building aligned with the vision of Viksit Bharat 2047.

**International Scientific Committee**

- Prof. Pawan Budhwar, Aston Business School, United Kingdom
- Prof. Kamal Saggi, Department of Economics, Vanderbilt University, USA
- Prof. Justin Paul, Department of Management, University of Puerto Rico, USA
- Prof. Damodar Y. Golhar, Department of Management, Haworth College of Business, Western Michigan, University, Kalamazoo, USA
- Prof. Kaliappa Kalirajan, Department of Economics, The Australian National University, Australia
- Prof. Subal C. Kumbhakar, Department of Economics, State University of New York, Binghamton, USA
- Prof. Satish Kumar, Department of Management, Sunway University, Malaysia

**National Scientific Committee**

- Prof. Sudesh Chhikara, Vice-Chancellor, Bhagat Phool Singh Mahila Vishwavidyalaya, Khanpur Kalan
- Prof. Rajive Kumar, Vice-Chancellor, J.C. Bose University of Science and Technology, Faridabad
- Prof. (Senior) Anup Maan, Dean Academic Affairs, MDU, Rohtak
- Prof. Geeta Singh, Director, Centre for Professional Development in Higher Education, University of Delhi, Delhi
- Prof. Arup Mitra, South Asian University, New Delhi
- Prof. Manoj Duhan, Department of Electronics and Communication Technology, DCRUS&T, Murthal
- Prof. Anil Ohlan, Department of Physics, MDU, Rohtak
- Prof. Anand Malik, Department of Physics, Chaudhary Ranbir Singh University, Jind, Haryana

## Course Teaching Faculty

Prof. (Emeritus) T. R. Kundu, Department of Economics, Kurukshetra University, Kurukshetra  
Prof. Pawan K Joshi, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi  
Prof. Rajesh Kumar, Department of Electrical Engineering, Malaviya National Institute of Technology, Jaipur, Rajasthan  
Prof. Vinay Shankar Prasad Sinha, Centre for the Study of Regional Development, Jawaharlal Nehru University, New Delhi  
Prof. Indrani Roy Chowdhury, School of Social Science, Jawaharlal Nehru University, New Delhi  
Prof. Umesh Bamel, International Management Institute, New Delhi  
Prof. Poonam Punia, Department of Education, BPSMV, Khanpur  
Prof. Renu Maan, Department of Education, Chhotu Ram College of Education, Rohtak  
Dr. Vinay Ahlawat, Head and Associate Professor, Department of Statistics, Central University of Haryana, Mahendragarh  
Prof. Rajesh Punia, Department of Physics, MDU, Rohtak  
Prof. Vinita Hooda, Department of Botany, MDU, Rohtak  
Prof. Naresh Kumar, IMSAR, MDU, Rohtak  
Prof. Pooja Vyas, IMSAR, MDU, Rohtak  
Prof. Elumalai Kannan, Centre for the Study of Regional Development, JNU, New Delhi

## About Department of Economics

The Department of Economics at Maharshi Dayanand University has over five decades of excellence in economics education, research, and community engagement. It offers undergraduate, postgraduate, and doctoral programmes with a strong focus on multidisciplinary learning, research, and skill development. The Department promotes a vibrant academic and research environment through conferences, seminars, workshops, and interdisciplinary initiatives on contemporary themes such as sustainable development, climate change, AI-driven economy, green transitions, international trade agreements, and urban-rural transformation. Its award-winning faculty regularly produce high-quality, policy-relevant research addressing major socio-economic challenges and strengthening evidence-based policymaking. These programmes equip students with the knowledge and skills required for careers in academia, government, industry, and international organizations.

## Course Overview

India stands at a critical stage of development where economic growth must align with environmental sustainability, social inclusion, and institutional resilience. The vision of Viksit Bharat @2047 complements the United Nations Sustainable Development Goals (SDGs), as both emphasize sustainable production, inclusive livelihoods, climate resilience, and evidence-based policymaking. A key national priority is the transition to a green economy, which includes low-carbon development, efficient resource use, technological innovation, and sustainable livelihoods. For India, this transition is both an environmental imperative and a developmental necessity. The country faces interconnected challenges such as climate change, energy security, agrarian distress, rapid urbanization, public health concerns, and regional inequalities. Addressing these issues requires rigorous social science research, reliable data, robust methodologies, and interdisciplinary approaches. The course aims to strengthen the research ecosystem that supports India's transition towards a green economy.

## Rationale

Research on green economy transition and sustainable development is inherently complex and interdisciplinary, requiring the integration of economic, environmental, social, spatial, and institutional dimensions. Contemporary sustainability research increasingly relies on large-scale datasets, advanced statistical and econometric techniques, qualitative analysis, spatial mapping, and policy evaluation tools. However, many scholars in social sciences lack systematic training in these methodological domains. Common challenges include limited exposure to applied data analysis, inadequate familiarity with research software, insufficient use of library and e-library resources, weak engagement with Indian Knowledge Systems (IKS), and deficiencies in academic

writing and publication practices. The course is designed to address these gaps by offering structured, intensive, and hands-on methodological training, combining conceptual clarity with practical application.

### Learning Objectives

The overarching objective of the course is to build advanced methodological and analytical capacity for studying India's green economy transition in alignment with the SDGs and the vision of Viksit Bharat @2047. Recognizing the spatial dimensions of environmental and development challenges, the course will provide training in QGIS (open-source) for mapping environmental indicators, land-use patterns, renewable energy infrastructure, and regional disparities. It will also offer demonstrative exposure to ArcGIS to familiarize participants with advanced spatial visualization and policy analysis techniques.

### Learning Outcomes

Upon completion of the course, participants will be able to design methodologically robust and SDG-aligned research; independently use research and spatial analysis software; effectively access and utilize scholarly resources; integrate Indian Knowledge Systems into contemporary research frameworks; and produce publishable, policy-relevant academic outputs.

### Course Main Contents

- Competing Frameworks on the Green Economy
- Indian Knowledge Systems and Sustainability
- Integrating Quantitative and Qualitative Evidence
- Construction of Sustainability, Vulnerability, and Composite Indices
- Impact Evaluation Techniques for Environmental and Development Policies
- Spatial Dimensions of Sustainable Development and Urban Change
- Geographical Information System and Remote Sensing Applications in Urban and Environmental Sustainability
- Academic Writing, Artificial Intelligence, Ethics, Research Communication and Publication Strategy
- E-Library Resources and One Nation One Subscription (ONOS)
- Epistemic and Methodological Justice
- Academic Databases, Indicators & Metrics

### Pedagogical Approach

The course will follow a structured and blended pedagogical framework integrating theory, practical training, e-library orientation, artificial intelligence tools, and research ethics. Dedicated sessions will focus on academic writing, research communication, publication ethics, and peer-review processes. Teaching methods will include conceptual lectures, hands-on laboratory sessions, dataset-driven exercises, SDG-aligned case studies, and guided research proposal development.

### Suggested Reading

Pramanik, S., & Punia, M. (2019). Assessment of green space cooling effects in dense urban landscape: A case study of Delhi, India. *Modeling Earth Systems and Environment*, 5(3), 867-884. <https://doi.org/10.1007/s40808-019-00573-3>

Ohlan, R., & Ohlan, A. (2026). Mapping the Evolving Landscape of Porter Hypothesis: A Bibliometric and Content Analysis for Environmental Management. *Business Strategy and the Environment*. <https://doi.org/10.1002/bse.70890>

Usmani, Z., Sharma, M., Karpichev, Y., Pandey, A., Kuhad, R. C., Bhat, R., ... & Gupta, V. K. (2020). Advancement in valorization technologies to improve utilization of bio-based waste in bioeconomy context. *Renewable and Sustainable Energy Reviews*, 131, 109965. <https://doi.org/10.1016/j.rser.2020.109965>

Singh, B., Kumar, R., & Singh, V. P. (2022). Reinforcement learning in robotic applications: a comprehensive survey. *Artificial Intelligence Review*, 55(2), 945-990.

<https://doi.org/10.1007/s10462-021-09997-9>

Mahtta, R., Joshi, P. K., & Jindal, A. K. (2014). Solar power potential mapping in India using remote sensing inputs and environmental parameters. *Renewable Energy*, 71, 255-262.

<https://doi.org/10.1016/j.renene.2014.05.037>

Yadav, M., Kumar, A., Mangla, S. K., Luthra, S., Bamel, U., & Garza-Reyes, J. A. (2019). Mapping the human resource focused enablers with sustainability viewpoints in Indian power sector. *Journal of Cleaner Production*, 210, 1311-1323. <https://doi.org/10.1016/j.jclepro.2018.11.132>

Barala, P., & Hooda, V. (2022). Hydrophilic polymers in agriculture and the use of nanoadditives to improve their capabilities. *Journal of Soil Science and Plant Nutrition*, 22(3), 2992-3011.

<https://doi.org/10.1007/s42729-022-00862-4>

**Head of Department:** Dr. Jagdeep Dahiya, Assistant Professor

**Organizing Secretary:** Dr. Komal Malik, Associate Professor

**Coordinator:** Dr. Bimla, Assistant Professor

**Organizing Committee:**

Dr. Rajesh, Associate Professor

Dr. Kiran Bala, Assistant Professor

Dr. Akshu, Assistant Professor (Contract)

**Research Scholars:** Mr. Sudhir, Mr. Anuj, Ms Sonia, Ms Priyanka, Ms Preeti, Ms Bhavya, Mr. Rakesh, Ms Kajal, Mr. Vikas

**Office Staff:** Mr. Sunil, Mr. Suresh, Mr. Sanjay

### Who Can Attend?

This course is designed for research scholars and students enrolled for Postgraduate/ Doctoral/Post-Doctoral research in social sciences, management, hotel and tourism, commerce, education, physical education, journalism and mass communication, law and allied areas in a UGC-recognized University/Deemed University/College/Institute of National Importance or ICSSR Research Institute. Participants application should be duly forwarded by the affiliating institution.

### IMPORTANT DETAILS

**Course schedule:** September 8th-18th, 2026; **Last date for course registration:** August 10th, 2026; **Confirmation of successful registration by email:** August 25th, 2026; **Mode:** Offline, **Venue:** Conference Hall, Ch. Ranbir Singh Institute of Social and Economic Change, MDU, Rohtak; **Course completion certificate:** Yes, a certificate will be awarded to participants upon successful completion of the course, provided they have no leave or absence during the course.

### REGISTRATION PROCESS

- Step 1:** Fill out the online Google Form using the link below to complete the course registration process. Applicants who register early will be given preference during the shortlisting process, subject to statement of purpose and ICSSR guidelines.
- Step 2:** Provisionally selected applicants will receive a shortlisting email regarding their participation in the course before the commencement of the course.
- Step 3:** Provisionally selected applicants who receive the shortlisting email will confirm their consent to participate in the course.

### REGISTRATION LINK

Online registration is mandatory. <https://forms.gle/Xhv574KHYS2FNsyF9>

## REGISTRATION FEE

This course is offered free of charge.

## TRAVEL & ACCOMMODATION

Interested outstation participants may be offered accommodation in the university transit hostel and faculty house within the campus for course duration, subject to availability. Selected outstation participants may be reimbursed their to-and-fro travel expenses (point-to-point) incurred for participation in this course, limited to travel by sleeper-class non-AC train, or non-AC bus. Reimbursement will be subject to the submission of valid travel tickets for journeys between their affiliated institution and the course venue upon successful participation in this course.

## FOR PARTICIPANTS QUERIES & CONTACT

Dr. Komal Malik, Department of Economics, MDU, Rohtak, Haryana-124001  
Mobile: **+91-9050005717** Email: **komalmalikeco@gmail.com**

