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Dr. AYUSH GAUTAM (Ph.D.)

Assistant Professor, Department of Management Studies, MNIT Jaipur

Ph.D. (Operations), Department of Management Studies, IIT Delhi MTech , IIT Roorkee

Newton Bhabha Research Fellow, Loughborough University, UK



Area of Interest

- Circular Economy, Circular supply chain
- Project Management Waste management
- Supply chain management
- Behavioural psychology and Sustainability for Infrastructure
- Logistics and Transportation
- Quality Management
- Industrial Engineering

I am working as a **Assistant Professor** at **MNIT Jaipur**. Prior to that, I was working as Analytics Advisory Specialist at Accenture, in the analytics and supply chain domain. I did PhD at IIT Delhi, graduated from IIT Roorkee. I developed a framework for managing the huge amount of solar PV and its balance of system waste using concept of Circular economy. My expertise lies in performing and simulating complex logistics problems using statistical software's, implementing analytic models and MCDM techniques for strategic planning and testing sequences for forecasting etc. My qualification for this position can be demonstrate by some of my projects on Supply chain Analytics, Optimizing Transport Network for Sustainable Supply Chain, Food supply chain framework for India, Behaviour Supply Chain, Factors affecting time duration of a train journey etc.

Position Held

S. No.	Post	Organization	Start date	End Date
1	Assistant Professor	MNIT Jaipur	14 th February 2024	Presently working
2	Analytics Advisory Specialist	Accenture	2 nd August 2022	13 th February 2024
3	Product Consultant	VERDIS	14 th March 2022	25 th June 2022

Education

Year	Degree/Examination	Institution/Board	Percentage
2022	PhD	Indian Institute of Technology, Delhi	8.415
2017	MTech.	Indian Institute of Technology, Roorkee	85
2015	Mechanical Engineering	GURU GHASIDAS CENTRAL UNIVERSITY, BILASPUR	81
2010	Twelfth	LASEA Jhalawar (CBSE)	81.4
2008	Tenth	KV Jhalawar (CBSE)	74.0

Ph.D. Thesis: - Modeling and Analysis of Management of Solar Panel e-waste: a Circular Economy Perspective (2022)

- · Estimation of EOL solar PV waste generated
- Modelling Circular business model for managing EOL e-waste in developing country
- Analyse operational decisions in the management of Solar panel e-waste

Framework for food supply Chain in India | IIT Delhi (2019)

- PhD maior project
- Data Visualization for Indian food grain production infrastructure

Container Supply Chain from dry port (2018)

- · Stacking of containers
- Industrial visit to JNPT port trust, India

Mathematical model for Sustainable Supply Chain | IIT Roorkee

2016-17

- Master's Dissertation
- Mathematical model for Minimizing supply chain cost and carbon emissions.
- Level of service, robustness used as constraint.

Optimization of Process Parameters in MMAW process using Taguchi Approach | IT GGV Bilaspur

2014-15

- Bachelor's Thesis
- Welding sample of specification AISI 1040 .
- Current & voltage parameter used for welding.
- Tests were conducted on a UTM (10 tones).
- Results put forwarded to the Taguchi design technique to optimize result.

Training | KaTPP, RUVNL Jhalawar

21 Nov to 5 Dec 2013

Visit and observe functioning of coal power plant.

Digitization of IIT Roorkee Campus Map | IIT Roorkee-Laboratory Project

Jan -May, 2016

- Obtained GCPs and geo-referenced the given map of IIT Roorkee campus.
- Digitized the geo-referenced raster of the scanned using QGIS.
- · Did overlaying and optimal route analysis in QGIS.
- Also did spatial analysis study on map.

Behaviour Supply Chain | IIT Roorkee

Jan-May 2015

- · Research paper review of Behaviour insights.
- · Modelling of Freight Transportation and Supply Chain

Factors affecting time duration of a train journey | IIT Roorkee- Academic Project Sept-Oct 2015

- Quantitative analysis of factors which aff ect time of journey.
- Find potential of diff erent factors by using SPSS.
- Defined 8 variable for New Delhi to Bhopal route.

Access Audit of Haridwar Railway Station | IIT Roorkee- Academic Project Oct 2015

- Study for ease of access through physical surveys.
- · Simulation of building environment with respect to PWD users.

Mobility Study - Influential Environmental Factors | IIT Roorkee - Academic Project Nov 2015

• Simulation study of IIT Roorkee Campus & Indira Market Dehradun.

 Documented the influence of environmental factors on PWD. **Publications** End-of-life solar photovoltaic e-waste assessment in India: a step towards a circular economy A Gautam, R Shankar, P Vrat Sustainable Production and Consumption 26, 65-77 (Elsevier, Impact Factor 12.2) Link:- https://www.sciencedirect.com/science/article/abs/pii/S2352550920303274 Managing end-of-life solar photovoltaic e-waste in India: A circular economy approach A Gautam, R Shankar, P Vrat Journal of Business Research 142, 287-300, Impact factor 11.3) Link: https://www.sciencedirect.com/science/article/abs/pii/S0148296321009498 Evaluating omni channel retailing in the emergence of industry 5.0: A perspective of South Asian generation Z Vardhan Choubey, Ayush Gautam, IJIM Data Insights (Elsevier) Volume :4 / / 2024 Link:- https://doi.org/10.1016/j.jjimei.2024.100257 Circular economy-based operational strategies in the management of solar photovoltaics e-waste: A multi-stakeholder perspective Ayush Gautam, Ravi Shankar, Prem Vrat, Business Strategy and the Environment (WILEY) 2024 Link: https://doi.org/10.1002/bse.3963 Conferences Circular Economy based approach for Managing End-of-Life Solar PV waste in India A Gautam, R Shankar, P Vrat ORSI, IIM Ahemdabad Managing End-of-Life Life Solar PV -A futuristic Problem A Gautam, R Shankar, P Vrat **Industry Day IIT DELHI** Classification and Estimation of Solar Panel waste in India A Gautam, R Shankar, P Vrat AGBA's 16th World Congress 16 (Best paper Award) **Featured** By Most Renounced PV Magzine India could have 2.95bn tons of solar waste by 2047 https://www.pv-magazine.com/2021/05/25/india-could-have-2-95bn-tons-of-solar-waste-by-2047/

Finalist of UK Alumni Awards 2021.

Elected as Co-curricular and Academic Interaction Council (CAIC) PhD representative of IIT Delhi

Awards / Scholarships / Academic Achievements

- MHRD Scholar
- Newton Bhabha International Research fellowship by British Council
- Won 1t Prize in school Hand writing competition. (English)

-Skills

Computer languages Basics of C and R

Any Logic	MATLAB	SPSS	
Mini Tab	MS Excel	Tableau	
ANSYS	SQL	STAN	

Software Packages

Additional Courses Taken

Operation Management

Public private Partnership

Evolutionary optimization

Stochastic Process Modeling

Sustainable Transportation Development

Project management and Operation Research

Data Visualization

Supply Chain management

Quantitative Techniques

Operations Planning and Control

Transport Infrastructure Planning and Management

Languages Known English (SRW), Hindi (SRW)

Conferences, Workshops, Industry Interaction

- 1) Attended Workshop on New Frontiers of Interpretive Research Methods.(26th November 2019)
- 2) Attend Factor Analysis workshop at Delhi University (29-5 October 2019)
- 3) Visit Renewable Energy India Expo (18-20 September 2019)
- 4) Attended a workshop on Fuzzy Evidential Reasoning Algorithm (FERA) held on 29th October, 2018, organized by Prof. Ravi Shankar at Department of Management Studies.
- 5) Attend workshop on 'Make In India: Importance of Operations and Supply Chain Management' at IIT Roorkee.
- 6) Attend workshop on 'Transportation safety' at IIT Roorkee.
- 7) Participated in 2nd Global Re-invest INDIA-ISA partnership (3-5 October 2018)
- 8) Attend DEA workshop at SAU Delhi (27-29 November 2018)
- 9) Go for industry visit NISE and ReNew power.
- 10) Attend Solar Expo in Faridabad
- 11) Attended GIAN course on Data Analytics at IIT Patna. (February 2018)
- 12) Case study visit at PV diagnostics, E-parisara, Adate Recycling and Seelumpur

MEMBER OF PROFESSIONAL BODIES

- 1. Production and Operation Management Society (POMS)
- 2. European Institute for Advanced Studies in Management (EIASM)

3. European Operations Management Association (EurOMA)

Positions of Responsibility & Extra Curriculars

8th Urban Mobility India Conference & Expo

November 2015

- Attended 4 day UMI conference & expo
- Organized by IUT in aegis with MoUD, Govt. of India, mandated by NUTP.

India International Science Festival

December 2015

- Participated in Young Scientists Conference.
- Organised by MoST and Earth Science Govt. of India, TIFAC & IIT Delhi.

Cognizance, Annual tech fest, IIT Roorkee

March 2016

- Co-Convener for CTRANS, IIT Roorkee
- Organized and coordinated departmental events at Centre for Transportation Systems, IIT Roorkee

EQUILIBRIO, GGU Annual Tech fest

2013.2014

- Event Head, Department of Mechanical engineering, ITGGV Bilaspur
- Organized and coordinated departmental events at ITGGV Bilaspur

Social Science Exhibition

20-22 August 2007

- Organised by Kendriya Vidyalaya Sanghtan, Jaipur Region
- Participated in Hindi Skit

UDAAN, University magazine

2011-13

• Member of Management Team

TARANG, University Band

2011-2014

- Congo player, drummer
- Participate in various inter and intra university events.

Scouts And Guides

2004-2010

- Nominated for Rajva Puraskar
- Clear Pratham, Dwitiya & Tritiya Sopan

Parasailing Programme

December 2004

- By NAF Chapter Rajasthan
- Sponsored by KVS and NAF New Delhi

Adventure Camp at Manali

16 - 25 May 2007

- By Directorate of Mountaineering and allied sports, Govt of HP, India
- Trekked 70 KMS at 12500 feet height on Himalayas.
- Done rock climbing, rappelling, river crossing, trekking, camping, jungle craft, white water rafting.

— References

Prof. Ravi Shankar (Research Supervisor) DMS IIT DELHI

r.s.research@gmail.com, +91 9811033937

Prof. Prem Vrat (Research Supervisor) Mechanical Engineering Department IIT DELHI, +91 9810568680 profpremvrat.iitd@gmail.com,

Prof. Ramesh Anbanandam

Department of Management Studies, IIT Roorkee ramesh.anbanandam@ms.iitr.ac.in, +91 9557526606