



About the workshop:

The two-day workshop is designed to deliver comprehensive technical knowledge and practical insights into sustainable wastewater management solutions tailored to the handmade paper sector. It focuses on the production of biochar from locally available biomass and its application as a low-cost, eco-friendly adsorbent for treating effluents generated during handmade paper manufacturing.

The handmade paper industry faces persistent challenges related to wastewater treatment, environmental compliance, and cost-effective pollution control. Biochar—a carbon-rich material produced through controlled pyrolysis of biomass—offers strong potential to address these issues due to its high surface area, adsorption capacity, and environmental sustainability.

Over the two days, participants will engage in theoretical sessions and practical demonstrations covering biochar production and application, along with field visits to KNHPI Jaipur and handmade paper units. The workshop promotes cleaner production practices, a circular economy approach, and compliance with environmental norms, while encouraging adoption of biochar-based technologies as an affordable and scalable solution for the sector.

Contact Person:

Prof. Madhu Agarwal, MNIT Jaipur

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Venue: Prabha Bhawan, MNIT Jaipur



PATRON

Prof. N. P. Padhy, Director, MNIT Jaipur

Dr Rahul Mishra, Director, KNHPI Jaipur

CHAIRPERSONS

Prof. A B Gupta, MNIT Jaipur

Dr. Diganta B Das, Loughborough University

Prof. Madhu Agarwal, MNIT Jaipur

Dr. Rajeev Kr. Dohare, MNIT Jaipur

COORDINATORS

Dr. Mark Leaper, Loughborough University

Dr. Saakshy Agarwal, KNHPI Jaipur

Dr. Manisha Sharma, Manipal University Jaipur

KEYNOTE SPEAKERS/RESOURCE PERSONS

Prof. A B Gupta, MNIT Jaipur

Dr. Diganta B Das, Loughborough University

Prof. Madhu Agarwal, MNIT Jaipur

Dr. Mark Leaper, Loughborough University

Dr. Saakshy Agarwal, KNHPI, Jaipur

Dr. Manisha Sharma, Manipal University, Jaipur

Dr. Vivekanand, MNIT, Jaipur

Mr. Jeekesh Arora, Inch Techase Pvt. Ltd. Jaipur

INTERNATIONAL WORKSHOP

ON

DECENTRALIZED BIOCHAR BASED EFFLUENT TREATMENT FOR HANDMADE PAPER CIRCULAR ECONOMY IN THE JAIPUR AREA

(JANUARY 21-22, 2026)

ORGANIZED BY

DEPARTMENT OF CHEMICAL ENGINEERING

MALAVIYA NATIONAL INSTITUTE OF
TECHNOLOGY JAIPUR



IN

ASSOCIATION WITH



LOUGHBOROUGH UNIVERSITY UK

&



शिल्प श्रम सनातन

KUMARAPPA NATIONAL HANDMADE PAPER
INSTITUTE JAIPUR



About the workshop:

Malaviya National Institute of Technology Jaipur

Malaviya National Institute of Technology Jaipur was established in 1963 with the name Malaviya Regional Engineering College, Jaipur as a joint venture of the Government of India and the Government of Rajasthan. On 26th June 2002, college has been given the status of National Institute of Technology. The Institute lies in the heart of the Pink City (Jaipur), imaginatively laid out with a picturesque landscape of 317 acres. It presents a spectacle of harmony in modern architecture and natural beauty. The campus is located in close proximity to Jaipur airport, railway station, major hospitals, and shopping malls. visit: "www.mnit.ac.in"

Kumarappa National Handmade Paper Institute

KNHPI is an autonomous body under Khadi & Village Industries Commission, Ministry of Micro Small & Medium Enterprises, Govt. of India. The Institute is recognized by Department of Scientific & Industrial Research, Govt. of India. Main activities of Institute include research & development, training, testing, consultancy services and revival of handmade paper units.

Loughborough University

Loughborough University UK is a public research university in the market town of Loughborough, Leicestershire, England. It has been a university since 1966, but it dates back to 1909, when Loughborough Technical Institute was founded. Loughborough University is known for exceptional teaching, strong industry links, and world-class sports, consistently placing in UK top ten league tables with a large single-

site campus in Leicestershire and a London campus for postgraduate study. It's globally recognized for sports-related subjects and boasts high ratings for research, employability, and student experience, focusing on innovation and tackling global challenges.

Schedule of Workshop

| Day1-Wednesday, 21 January 2026 | | |
|---------------------------------|---|---------------------------------|
| Time | Session/Activity | Details |
| 10:00-11:00am | Inaugural Session | - |
| 11:00-11:30am | High Tea & Networking | - |
| 11:30-12:00 noon | Session1: Introduction of handmade paper Industries and related research work | Dr. Saakshy Agarwal |
| 12:00-12:30 noon | Session 2: Decentralized waste treatment for handmade paper Industry-Research opportunity | Dr. Mark Leaper |
| 12:30-1:00pm | Session 3: Research at MNIT Jaipur | Prof. A.B. Gupta |
| 1:00-1:20 pm | Session 4:Scaleups for biochar production | Mr. Jeekesh Arora |
| 1:20-2:00 pm | Session 5: Discussion with Industry participants -Challenges | Prof. A.B. Gupta Prof. Madhu |

| | &opportunities | Agarwal Dr. Diganta B Das Dr. Mark Leaper |
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| 2:00-3:00 PM | Lunch | - |
| 3:00-3:30 PM | Session 5:Work on biochar at Manipal University | Dr. Manisha Sharma |
| 3:30-4:00 PM | Tea Break | - |
| 4:00-4:30 PM | Session 6: Handmade Paper Industry waste utilization | Dr. Vivekanand |
| Day2 - Thursday, 22 January 2026 | | |
| Visit to local handmade paper Industries | | |

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Free participation for associate partners and handmade paper Industries.