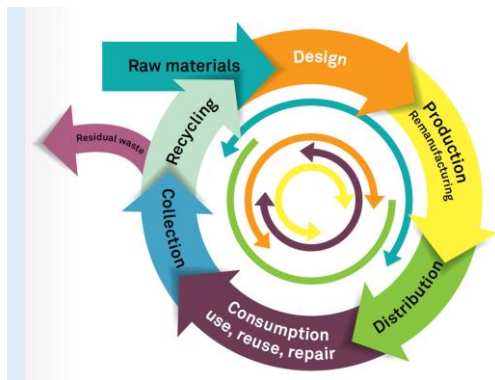


Under the aegis of GIAN
A Course on
Circular Manufacturing System

24th January to 28th January, 2022



Sponsored by: MHRD, Govt. of India

Organized By

Department of Mechanical Engineering,
MNIT Jaipur (Rajasthan)

Jawahar Lal Nehru Marg, Malaviya Nagar,
Jaipur, Rajasthan -302017,

Website: www.mnit.ac.in

Overview

The philosophy of today's society is "take-make-use-dispose" i.e., we use the resource, convert them in to products and after using them we throw them as a waste. This leads to two problems: one is scarcity of resources on earth and the other is increasing the waste on earth because the earth has limited resources as well as finite waste carrying capacity with increasing in population, luxury life style this problem in continuously increasing.

Manufacturers are working in direction of efficient usage of resource. They are continuously working for minimizing cost and waste. But this is only limited to manufacturing instead of the whole system. There are some research practices taking place in direction of end-of-use/end-of life (EOU/EOL), which is currently not accepted by manufacturers.

As being in production engineering area, we should extend our focus from manufacturing process to systems i.e., our interest has to be in closing the loop of manufacturing by recycling and reusing the materials. So we can say that re-manufacturing is not being adopted as businesses despite its benefits are highlighted by researchers. United Nations Development Programme (UNDP) – Responsible consumption and production (RCP-12) focuses on efficient management of our shared natural resources, and disposal of toxic waste and pollutants. They aim to encourage industries, businesses and consumers to recycle/reduce waste, along with supporting developing countries to move towards more sustainable patterns of consumption by 2030.

The main issue is lack of alignment between different activities in conventional manufacturing. Based on this we can conclude that there is a requirement of moving towards systematic approach i.e., circular manufacturing systems.

Objectives of the course	<ol style="list-style-type: none"> 1. To acquire a systematic knowledge and critical understanding of the core concepts, methods and technologies of circular manufacturing system 2. To demonstrate a systemic and systematic approach that can guide industries in managing resources flows via closing the loop of the products/components after their end-of-life in a circular manufacturing system. 3. To demonstrate the use of methods and decision support tools which can aid the implementation process by analyzing the systemic dependencies and relationships among various important elements of circular manufacturing system. 4. To understand the role of contemporary circular and digital economy in transforming linear manufacturing system to circular and sustainable business system
Course duration	<ul style="list-style-type: none"> ● Duration: 24 January, 2022 – 28 January, 2022 ● Total Contact Hours: 20 hours: 4 hour lectures/day ● Mode of delivery: Online on Google meet
Course contents	<ul style="list-style-type: none"> ● Concepts of circular economy ● Sustainability issues in manufacturing ● Modelling of complex systems ● Resource flows ● System of Remanufacturing ● Contemporary business models and circular manufacturing
Who should attend the course	<ul style="list-style-type: none"> ● Executives, engineers and researchers from manufacturing, service and government organizations including product development laboratories. ● Students at all levels (B.Tech./M.Sc./M.Tech./Ph.D.) or Faculty Members from academic institutions and technical institutions.
Course Fees	<p>The participation fees for taking the course is as follows:</p> <ul style="list-style-type: none"> ● Participants from abroad: US\$50 ● Industry/Research Organizations: Rs. 5000 /- ● Faculty from Indian academic Institutions: Rs.3000 /- ● Research Scholars and students: Rs.1000/- <p>Note:</p> <ul style="list-style-type: none"> ● The above fee includes all instructional materials, tutorials and assignments. (Exclusive of GIAN Portal Registration fee)
Registration date and Mode of fee payment	<p>Participants are requested to transfer the registration amount in the following account: Registrar (Sponsored research) MNIT Jaipur Account no: 676801700388; Bank name: ICIC bank ltd. IFCS code: ICIC0006768 Branch name: MREC branch, Malaviya National Institute of Technology Jaipur , J.L.N. marg, 302017</p> <p>Please email the transaction number and the signed registration form by the deadline to Dr. Gunjan Soni at gsoni.mech@mnit.ac.in</p>

International Expert:

Dr. Sachin Kumar
Mangla



Dr. Sachin is working as a Faculty of Arts, Humanities and Business (Visiting Fellow), University of Plymouth, United Kingdom. Dr. Sachin is also working as a Faculty of Operations Management, Jindal Global Business School O P Jindal Global University, India. He is working in the field of Green and Sustainable Supply Chain and Operations; Industry 4.0; Circular Economy; Decision Making and Modelling. He has a teaching experience of more than five years in Supply Chain and Operations Management and Decision Making, and currently associated in teaching with various universities in UK, Turkey, India, China, France, etc. He is committed to do and promote high quality research. He has published/presented several papers in reputed international/national journals (International Journal of Production Economics; International Journal of Production Research; Production Planning and Control; Business Strategy and the Environment; Journal of Cleaner Production; Annals of Operations Research; Transportation Research Part – D; Transportation Research Part – E; Renewable and Sustainable Energy Reviews; Resource Conservation and Recycling; Information System Frontier; Management Decision; International Journal of Logistics Research and Applications; Benchmarking an International Journal; Industrial Data and Management System; International Journal of Quality and Reliability Management) and conferences (POMS, SOMS, IIIE, CILT - LRN, GLOGIFT). He has an h-index 47, i10-index 83, Google Scholar Citations of more than 6000. He is involved in editing couple of Special issues as a Guest Editor in Production Planning & Control: The Management of Operations, and Resources, Recycling and Conservation, Annals of Operations Research, Journal of Resource Policy, Journal of Cleaner Production, and 'Technological Forecasting and Social Change' on various issues of 'Industry 4 and Circular Economy' and Green and Sustainable Supply Chains Performance Improvement' and 'Food Supply Chains' 'and 'Industry 4.0, Cleaner Production, Circular Economy and Ethical Business Development'. Currently, he is also involved in several research projects on various issues and applications of Circular economy and Sustainability. Among them, he worked for knowledge based decision model in "Enhancing and implementing knowledge based ICT solutions within high risk and uncertain conditions for agriculture production systems (RUC-APS)", European Commission RISE scheme, €1.3M. Recently, he has also received a grant as a PI from British Council - Newton Fund Research Environment Links Turkey/UK - Circular and Industry 4.0 driven sustainable solutions for reducing food waste in supply chains in Turkey. He is also working with USERC (Uttarakhand Science Education & Research Centre), Govt of Uttarakhand, India for managing food waste in Circular Economy. He is also a professional member of Indian Institution of Industrial Engineers (India); OPERATIONAL RESEARCH SOCIETY OF INDIA; Society of Operations Management (SOMS); Multiple Criteria Decision Making (MCDM) Society; System Dynamics Society, UK.

You may reach him at sachin.kumar@plymouth.ac.uk ; sachinmangl@gmail.com

Course coordinators

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Contact details

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A Course on Circular Manufacturing System

24th January to 28th January, 2022



Registration form

Name (In Block Letters):

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Designation:.....

Qualification:

Institution:

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Address:

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Email address:

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Mobile No:

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Payment details:

Transaction No:

Bank Name:

Date:

Amount:

Signature of the Candidate

**** Kindly mail the registration form with ID and snapshot of transaction**