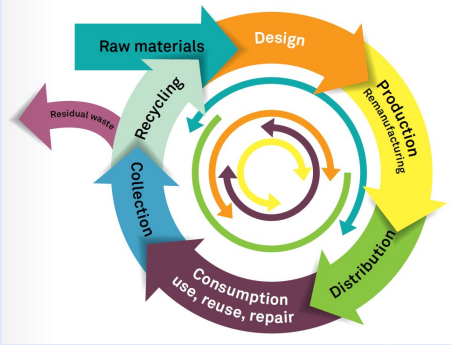
Under the aegis of GIAN

A Course on
Circular Manufacturing System

20th April to 24th April, 2020

GLOBAL INITIATIVE OF ACADEMIC NETWORKS

सत्यमेव जयते



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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, alongwith 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	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	• Duration: 20 April, 2020 – 24 April, 2020 • Total Contact Hours: 20 hours: 4 hour lectures/day. • Number of participants for the course will be limited to fifty
Course contents	• Resource Conservation • Modelling of complex systems • Resource flows • System of Remanufacturing • Contemporary business models and circular manufacturing
Who should attend the course	• 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	The participation fees for taking the course is as follows: • Participants from abroad: US$100 • Industry/Research Organizations: Rs. 5000 /- • Faculty from Indian academic Institutions: Rs.3000 /- • Research Scholars and students: Rs.1000/- Note: • The above fee includes all instructional materials, computer use for tutorials and assignments.(Exclusive of GIAN Portal Registration fee) • The participants may be provided accommodation on payment basis. • Please note that no TA/DA shall be paid to participants.
Registration date and Mode of fee payment	Participants are requested to send a Demand Draft in favor of **"REGISTRAR, MNIT Jaipur"** payable at Jaipur with a print out of the filled in Registration form, by **Courier/ Speed Post/ Registered Post** before 5th April, 2020 to: **Dr. Gunjan Soni, Assistant Professor, Department of Mechanical Engineering, J.L.N. Marg, MNIT, Jaipur-302017, Rajasthan, India.** Please email a scanned copy of the DD and the signed registration form by the deadline to Dr. Gunjan Soni at **gsoni.mech@mnit.ac.in**
Local accommodation	Accommodation at the Institute Guest houses will be available on payment basis. The details regarding boarding and lodging are as follows: Rates: ***Guest House 1 (Limited capacity): (***Single occupancy, double-bedded a/c room): Rs. 900/- per day + Taxes ***Guest House 2:*** (Single occupancy, double-bedded a/c room): Rs. 400/- per day + Taxes ***Aurobindo Boys Hostel:*** (Single occupancy, double-bedded non a/c room): Rs. 200/- per day. ***Gargi Girls Hostel:*** (Dormitory): Rs. 200/- per day There are many good fair price lodging facilities available nearby the campus. TA/DA will not be paid to any participant.

International Expert: Dr. Sachin Mangla Kumar 	Dr. Sachin is working as a Faculty of Knowledge Management and Business Decision Making, University of Plymouth, United Kingdom. Dr Sachin 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 repute 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 28, i10-index 48, Google Scholar Citations of around 2500. 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 is responsible 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.
Course coordinators	Dr. Gunjan Soni Department of Mechanical Engineering MNIT Jaipur Dr. Amar Patnaik Department of Mechanical Engineering MNIT Jaipur
Contact details	Email: gsoni.mech@mnit.ac.in Mobile: 09549654559

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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 by DD in favor of "REGISTRAR, MNIT JAIPUR" payable at Jaipur.
Details of Demand Draft:
DD No: ..... Bank Name:..... Date: .....
Amount Rs: .....

Signature of the Candidate
****Speed Post latest by 5th April, 2020 and send scanned copy of the same on gsoni.mech@mnit.ac.in**

Dr. Gunjan Soni
Assistant Professor
Department of Mechanical Engineering,
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Rajasthan, India.