Immersive Talks with W2V Experts

- An Initiative of Social Innovations @ Venture Center -

Gains	• Get an overview of key issues/ challenges and emerging opportunities in the Waste-to-Value (W2V) domain • Explore potential industry-academia/research fraternity partnerships in technology development and advancement to address Waste-related issues prevalent in India • Get on a common platform with innovators, enthusiasts and experts pan-India
Organized by	• Social Innovations @ Venture Center • NIDHI Center of Excellence @ Venture Center
Supported by	• Biotechnology Industry Research and Assistance Council (BIRAC) • NIDHI Center of Excellence supported by DST-NSTEDB @ Venture Center
For whom	• Innovators and technologists • NGOs and Social Innovators • Industry professionals • Researchers and students • Entrepreneurs/ startups with interest in W2V issues • Impact/ Social Investors with interest in venture financing for W2V issues. We especially welcome budding entrepreneurs who wish to work on W2V themes
When	***Starting 10 Sept 2020 (1 hour interactive talks by experts)*** **For schedule:** https://www.venturecenter.co.in/socialinnovations/events/
Where	All sessions will be held on an online platform
Contact	**Technical queries:** Dr Mugdha Lele | mugdha@venturecenter.co.in | Phone: 7410045652 **Registration queries:** Ms Neha Khaladkar |neha@venturecenter.co.in | Phone: 8956677543 Ms Lipika Biswas |eventsdesk@venturecenter.co.in |Phone: 020-25865877/76
Registration	o Free event. Registration is mandatory. o Registration form available at - https://tinyurl.com/w2vtalks o Maximum 60 seats; First-come-first-serve basis. o Attendance only on confirmation of registration. Only registered participants will be allowed to participate. Each talk will have a separate login link to join. o Sessions will be conducted using online platform. More details at: https://www.venturecenter.co.in/socialinnovations/events/

Introduction

The Immersive Talk Series with W2V Experts aims to network all stakeholders to help initiate useful projects, start-ups etc in Waste valorization space. Sub-themes that will be explored include:

- waste reduction
- circular economy
- sustainability
- waste to value.

This Series is part of the Social Innovation Initiatives at Venture Center. The objectives are :

- To initiate exploration of problems in the W2V domain via immersive interactions with the experts
- To explore potential industry-academia/research partnerships in technology development and advancement in this domain
- To foster networks with industry/academic experts/ entrepreneurs
- To make available a common platform for innovators, enthusiasts and experts pan-India

Program Structure and Format

- Twelve talks delivered by experts in W2V domain, conducted as 12 separate sessions
- Talks will be focused around the sub-domains of: waste reduction, circular economy, sustainability and W2V.
- Each talk will be announced separately.

Terms and Conditions for Participants

- Participants shall arrange their own devices (preferably Laptop/ Tablet) and ensure good internet connectivity during the online course.
- No sessions will be repeated if a participant is unable to join due to poor internet connectivity or any other reasons.

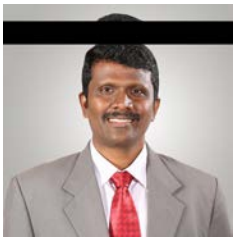
Program Includes

- Free membership in mailing list to follow-up on program and intimation of relevant events/ funding opportunities from Venture Center
- Access to all presentations via a restricted website

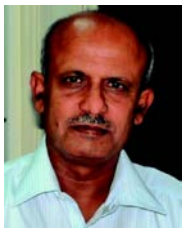
Schedule of talks (look up website for schedule of talks: https://www.venturecenter.co.in/socialinnovations/events/)

	Sessions	Speaker
1.	Insights: Plastic recycling landscape in India (10 Sept 2020, 4 - 5 pm)	Dr. Magesh Nandgopal (Scientist, NCL)
2.	Renewable Chemicals and Materials : The Nature Reimagined (17 Sept 2020, 6.15 - 7.15 pm)	Dr. Pramod Kumbhar (President and Chief Technology Officer, Praj Industries Ltd)
3.	Overview of bioprocess engineering technologies in reducing waste and creating value (24 Sept 2020, 4 - 5 pm)	Dr. Sandeep Kale (Managing Director, QbD Purples Advanced Technologies)
4.	Overview of Biomass to valuable chemicals (1 Oct 2020, 4-5 pm)	Dr. Paresh Dhepe (Scientist, NCL)
5.	Conversion of cellulosic biomass to valuable materials (8 Oct 2020, 4-5 pm)	Dr. S. Kadhiravan (Scientist, NCL)
6.	Technologies and problems in converting Organic Solid Wastes to Biomethane and Biohydrogen (15 Oct 2020, 4-5 pm)	Dr. Dilip Ranade (Consultant, MCC-NCCS)
7.	Mycology-based technologies to convert waste into value-added products (22 Oct 2020, 4-5 pm)	Dr. Rohit Sharma (Scientist, NCCS-NCMR)
8.	Innovative technologies for renewable monomers from waste (29 Oct 2020, 4-5 pm)	Dr. Prakash Wadgaonkar (Emeritus Scientist, NCL)
9.	Insights into marine waste to value added products (12 Nov 2020, 4-5 pm)	Dr. Pazhnaimuthu Annamalai (Aurabiotech Pvt Ltd, Chennai)
10.	Technologies for the Utilization of Animal and Tannery By-products (19 Nov 2020, 4-5 pm)	Dr. Balaraman Madhan (Principal Scientist, CSIR-Central Leather Research Institute, Chennai)
11.	Overview of innovations in secondary agriculture and food/ agro processing / Jaggery as a product (26 Nov 2020, 4-5 pm)	Dr. Vishal Sardespande (Adjunct Professor, CTARA, IITB and Director, Sarvaay LLP)
12.	Biomass to Biofuels - Biomobility Platform (27 Nov 2020, 4-5 pm)	Mr. Ghanshyam Deshpande (President - Technology and Engineering, Praj Industries Ltd)

Speakers (in alphabetical order of last names)	
	**Pazhnaimuthu Annamalai** Muthu is Founder & Managing Director of AURA Biotechnologies Pvt Ltd. in Chennai. He has over 15 years of experience in the pharma and biotechnology industry and of which more than 10 years have been spent in drug development including small and large molecules (Biologics). He has completed his Ph.D in biotechnology as CSIR fellow. With vast experience in bioassay, molecular biology, pharmacokinetics, pharmacodynamics and Immunogenicity assay development for biosimilars. His company is involved in developing bioassays, ideotype antibodies for monoclonal antibodies and therapeutic peptides. His company is also involved in developing biosimilar molecules. Prior to AURA Biotech, he has worked with Dr. Reddy's laboratories, Advinus therapeutics, Anthem Biosciences and Micro therapeutics.
	**Ghanshyam Deshpande** Mr. Deshpande is President and presently heading Technology and Engineering division in Praj Industries Ltd. He is Masters in Chemical Engineering from ICT, Mumbai. He has more than 30 years experience in Designing, Engineering and commercialization of Biofuel and Beverage Ethanol technologies globally. He has more than ten filed patents and is actively involved in commercialization of Praj's 2nd Generation Smart Bio refinery, particularly in the development and commercialization of biofuels - bio CBG, bio-jet fuel, marine fuel etc, for all modes of transportation.
	**Paresh Dhepe** Paresh is currently a Senior Scientist in Catalysis And Inorganic Chemistry Division at CSIR-NCL. He is Ph.D in Green Chemistry: Heterogeneous Catalysis from Hokkaido University, Japan. His areas of expertise include Green chemistry where he has worked on conversion of biomass (renewable feedstock) into value-added chemicals using environmental green pathways. He also specialized in catalyst designing here he has worked on synthesis and characterization of silico-aluminophosphate (SAPO), supported metal oxides, carbonaceous catalyst, mesoporous silicas, supported metal nanostructures, solid acids, solid bases. He also works on varied catalysis processes like hydrolysis, hydrogenolysis, hydrogenation, hydroxylation, oxidation, dehydrocyclization, isomerization reactions by heterogeneous catalysts. He has several ongoing National and International collaborative projects, publications, awards and patents to his credit.
	**S. Kadhiravan** Kadhiravan is currently a Senior Scientist in the Polymer Science and Engineering Division of CSIR-NCL in Pune. His research has primarily focused on polymer nanofibers, nanocellulose based functional composites, stimuli responsive nanocomposites, microencapsulation and composites for additive manufacturing. His formal education and professional experience includes a B.Tech in Textile Technology from Anna University (Chennai), a M.S from University of Massachusetts Dartmouth (USA) (working with Dr. Prabir Patra), a Ph.D in Macromolecular Science and Engineering from Case Western Reserve University (USA) (working with Profs. Christoph Weder, Stuart Rowan and Dustin Tyler) and post-doctoral research at The University of Texas at Austin, USA (with Prof. Christopher Ellison). He has authored about 45 publications and several patents and has been recognized by several awards including Graduate Student Silver Award from Material Research Society (USA), and Joseph Breen Memorial Fellowship from American Chemical Society (ACS).
	Sandeep Kale Sandeep is Managing Director at Qbd Purple Advanced Technologies Pvt. Ltd. He is M.Tech in

	Bioprocess Technology and Ph.D. (Tech) in Chemical Engineering from ICT, Mumbai. He has over 10 years of experience in technology development and translation with 25 patents. He has earlier worked as associate professor and coordinator of M Tech Bioprocess Program at ICT, Mumbai. He is recipient of 'Young Scientist Award in Biochromatography' from SBCN, France. He has also received Dr. PD Sethi award and Dr. R.K. Khanna Memorial award for best research papers. He has commercialized multiple technologies. At ICT, Mumbai he has guided 26 Masters and 11 PhD students. He has active collaboration with various industries in India and abroad. He has developed several new technologies for the industries e.g. herbal/natural products purification, Oil seed meal processing, various protein purification and hydrolysis, omega fatty acid purification by chromatography, glycerol refining, sugar and oligosaccharide purification, stevia extraction and purification, antioxidant extraction and purifications related to cancer, diabetes, inflammation, autism, skin care, brain development etc.
	**Pramod Kumbhar** Dr. Kumbhar is President and Chief Technology at Praj Matrix –R&D center leading a team of 90+ scientists and engineers. After working for more than 20 years in petrochemical (hydrocarbon) industry he shifted to biotechnology led renewable fuels and chemicals industry, where he is driving innovations in biotechnology to make biofuels and bio chemicals. Kumbhar is Ph.D. in Chemical Engineering from Institute of Chemical Technology, Mumbai and has done Postdoctorate from CNRS laboratories in Montpelier and Institute of Catalysis, Lyon in France. He is a fellow of Maharashtra academy of sciences and has received the ICI process development award from Indian Institute of Chemical Engineers. Prior to Praj, he has worked at General Electric R&D Centre in Bangalore and SI Group (formerly Schenectady chemicals, USA) in various positions including R&D director for Asia Pacific. He has several publications and more than 30 International patents to his credit.
	**Balaraman Madhan** Madhan is a Senior Principal Scientist at the CSIR-Central Leather Research Institute (CSIR-CLRI), at Chennai. He also serves as an Honorary Professor for Anna University at the Department of Leather Technology housed at CSIR-CLRI. He holds a M.Tech in Leather technology and PhD in the Faculty of Technology from Anna University. He pursued his post doctoral research through DST BOYSCAST award fellowship in the area of Biomedical Engineering at Robertwood Johnson Medical School, UMDNJ – Rutgers University, New Jersey, USA. Madhan has made significant contribution in understanding the structural basis for the genetic disorder Osteogenesis Imperfecta, which happens due to single point mutation of Glycine in Type I Collagen. His current research focus is on the development of collagen based biomaterials for various un-met clinical applications. Dr Madhan has transferred a game changing technology on collagen-based biomaterials for the treatment of chronic wounds. He had been associated with the rehabilitation of Leprosy Cured but Deformed Persons (LCDPs) at Sri Ramakrishna Math, Chennai. Chronic wounds of more than 50 LCDPs using collagen biomaterials developed by Dr Madhan's group. He has more than 115 publications in highly reputed peer reviewed international journals and 12 patents to his credit. He has participated in several national and international conferences/symposia. Several papers published by him have received wide citations. Recognizing his contributions to the understanding of tanning and potential impact of his research in Biomedical applications, he was awarded the prestigious CSIR Young Scientist Award in 2009 and Young Engineer Award from Indian National Academy of Engineers (INAE) and Institution of Engineers of India (IEI) in 2011. In 2017, Madhan as a part of the CSIR-CLRI team received FICCI R&D Award, CSIR Technology Innovation Award and NRDC Meritorious Award for the development and translation of Waterless Chrome Tanning Technology. Madhan has been associated in handling several international capacity building projects in Vietnam, Ethiopia,

	Kenya and Rwanda.
	**Magesh Nandagopal** Magesh is Scientist and Technology Manager in NCL Innovations at CSIR-NCL, Pune. He manages the large pool of technologies and works with partners in taking technologies to the market, and is involved in creating technology based start-ups. He has advised over 100 innovators and entrepreneurs in funding, start-up creation, business planning and other issues. Magesh has a PhD (in Polymer Science) and an MBA (in Finance) - both from the University of Connecticut, USA. He has also been a Chevening Rolls Royce Science, Innovation, Policy and Leadership Programme (CRISP) Fellow at the Said Business School, University of Oxford, UK in 2017.
	**Dilip Ranade** A microbiologist by training, Dr. Ranade is currently a Member of Advisory Committee, ONGC Energy Centre, New Delhi and consultant to three companies. He had a long career spanning more than 30 years at the DST supported MACS-Agharkar Research Institute in Pune. During this long research career, he has achieved excellence in anaerobic microbiology with expertise on biomethanation processes on varied biomass and industrial wastes, microbial corrosion, standardized biomethanation processes from different biomass and animal wastes, food wastes, developed microbial process for production of hydrogen from industrial wastes using a high hydrogen producing anaerobe, developed a process for microbial enhanced recovery of oil which has been successfully tested on different oil wells. His research studies also included studies on different anaerobic bacteria including sulphate reducing bacteria, methane producing anaerobes, anaerobic bacteria from human gut. He has developed and transferred 6 know-how on biomethanation and petroleum biotechnology to different industries. Currently he consults startups and industries to solve problems in biomethanation /biogas plants, anaerobic treatment plants for industrial wastewater, microbial problems and solutions for petroleum systems, etc. One of his client companies is the lead company to provide the Anaerobic Microbial Inoculum to Indian Railways for use in Railway's bio- toilets. He is Fellow of Maharashtra Academy of Sciences, Fellow of Association of Microbiologists of India. He was short listed among final five nominees for the First World Bioenergy Award, 2009.
	**Vishal Sardeshpande** Vishal is founder of SARVAAY Solutions and also working as an adjunct associate professor at Centre for Technology Alternatives for Rural Areas (CTARA), IITB. He is M.Tech and Ph.D from Department of Energy Science and Engineering, IITB. He specializes in product development, industrial energy studies and applications. He has been associated with Thermax, A.T.E. Enterprises, National Dairy Development Board (NDDB), Ministry of New and Renewable Energy (MNRE) Govt. of India and Forbes Marshall and has more than 22 years of experience in industry and consulting engineering. He is currently working on scale-up of jaggery and turmeric processing plant and farm-based biomass dryer. He is developing solar process heat applications in dairy, community cooking and solar roasting. He is a certified energy auditor from the Bureau of Energy Efficiency, Govt. of India. He has also been a Chevening Rolls-Royce Science, Innovation and Leadership fellow at the Saïd Business School, University of Oxford, UK.
	Rohit Sharma Rohit is currently Scientist at NCCS-NCMR and in-charge as a Curator of the Fungal General Deposit (GD). He is responsible for fungal (filamentous and yeast form) culture collection as general deposit from various research institutes, universities and industries and supply fungal

	cultures to various organizations. He has extensive research work in the domains of taxonomy and systematics of fungi, working on the biodiversity of fungi from different niches across the country from Sikkim forests to the biosphere reserve of Chhattisgarh. Earlier, he has also worked on ectomycorrhizal mushrooms. He is interested in developing environmental and industrial solutions from his research work focussing on applications like waste treatment, composting, products from fungi, etc. His work also focuses on biodegradation of phenol waste via fungal isolates for phenol oxidase activity, application of microbes (both bacteria and fungi) for the colour removal of effluent or spent wash from distillery waste, applications using mushrooms for product development such as industrially important enzymes, organic acid production, waste treatment, myco-packaging, etc. He has several research publications to his credit in this domain.
	**Prakash Wadgaonkar** Dr. Wadgaonkar is Emeritus Scientist at Polymer Science and Engineering Division, CSIR-NCL and has been with NCL since 1982. He is a Ph.D from Pune University. His areas of expertise include controlled polymerization methods, monomers and polymers from renewable resources, high performance polymers, polymers for optoelectronics, associating polymers, polymeric materials for gas separation, self-healing polymers, click chemistry, PDMS elastomers for maxillofacial prostheses and UV curable coatings. He has more than 200 publications and 20+ National and International patents to his credit. He has also been consulting various industries during his NCL tenure.

Organized by	
	Venture Center is committed to Social innovation and entrepreneurship. We actively nucleate and nurture enterprises that focus on solving socially important problems and build sustainable entities (for profit or not-for-profit) to deliver the solutions to society. Focus areas at Venture Center include affordable health and nutrition, empowering farmers, clean energy, sustainable resource utilization, environment and circular economy, water, sanitation, hygiene and any other social sectors that can leverage Venture Center's innovation ecosystem. Venture Center is supported as a SPARSH Center by the Biotech Industry Research Assistance Council (BIRAC), Government of India. The Social Innovation Immersion Programme (SIIP) is a fellowship program conceptualized by BIRAC, as part of its SPARSH (Social Innovation Programme for Products: Affordable & Relevant to Societal Health) scheme. SIIP intends to create a pool of "Social Innovators" who can identify needs and gaps within communities and then can help bridge the gaps either through an innovative product development or services. Venture Center is an implementation partner for this BIRAC funded program for the theme of "Waste to value". For more information, visit: http://www.venturecenter.co.in/socialinnovations
	The National Science and Technology Entrepreneurship Development Board (NSTEDB), Department of Science and Technology, Government of India has awarded Venture Center with the status of a NIDHI-CoE (National Initiative for Developing and Harnessing Innovations — Center of Excellence an umbrella programme conceived by DST). This award is meant to help Venture Center scale-up its activities, demonstrate a high-density cluster of high-tech startupsof more than 100 startups at any time and to upgrade and add new facilities for supporting science and technology based startups. NIDHI-COE is catalyzed and supported by NSTEDB Division, Department of Science and Technology, New Delhi. For more information, visit: http://nidhicoe.venturecenter.co.in/

Supported by	
	Biotechnology Industry Research & Assistance Council is a new industry-academia interface and implements its mandate through a wide range of impact initiatives, be it providing access to risk capital through targeted funding, technology transfer, IP management and handholding schemes that help bring innovation excellence to the biotech firms and make them globally competitive. For more information, visit: www.birac.nic.in
	Entrepreneurship Development Center (Venture Center) – a CSIR initiative – is a Section 25 company hosted by the National Chemical Laboratory, Pune. Venture Center strives to nucleate and nurture technology and knowledge-based enterprises by leveraging the scientific and engineering competencies of the institutions in the Pune region in India. The Venture Center is a technology business incubator supported by the Department of Science & Technology's National Science & Technology Entrepreneurship Development Board (DST-NSTEDB). Venture Center's focuses on technology enterprises offering products and services exploiting scientific expertise in the areas of materials, chemicals and biological sciences & engineering. For more information, visit: http://www.venturecenter.co.in/
	The National Science & Technology Entrepreneurship Development Board (NSTEDB), established in 1982 by the Government of India under the aegis of Department of Science & Technology, is an institutional mechanism to help promote knowledge driven and technology intensive enterprises. The Board, having representations from socio-economic and scientific Ministries/Departments, aims to convert "job-seekers" into "job-generators" through Science & Technology (S&T) interventions. For more information: http://www.nstedb.com/
	Department of Science & Technology (DST) was established in May 1971, with the objective of promoting new areas of Science & Technology and to play the role of a nodal department for organising, coordinating and promoting S&T activities in the country. For more information: https://dst.gov.in/

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