II International Conference on Knowledge Partnerships To Advance the UN SDGs

'Towards Sustainable Lifestyles and Inclusive Societies' Competencies, Skills, Knowledge and Attitudes for Sustainable Futures

A two-day II International Conference on Knowledge Partnerships to Advance the UN Sustainable Development Goals (SDG) focusing on the subject "Towards Sustainable Lifestyles and Inclusive Societies" was jointly organised by St. Philomena's College (Autonomous), The Sustainability Platform (TSP), Asia and Xavier Board for Higher Education in India, on Feb 8 and 9, 2019. The conference endorsed the motto of SDGs in building a nested model of sustainable development as sustainability is the new way of innovation.

The conference began with a brain-storming workshop where, participant's were divided into groups and few key aspects around creating sustainable lifestyle were deliberated. These deliberations were translated into posters by the participants who were ably guided by the faculty member of St Philomena's College (Autonomous) who actively moderated these group discussions.

These discussions laid foundations for the plenary sessions on 'Innovation, Design, and Enterprise to Advance Sustainability (IDEAS). The panel members present were Arun Subramaniam, Robert Steele, Arvind Lodaya, Pavithra Mohanraj, Ipshita Chaturvedi and other experts who shared their experience in bringing innovation and evolving as renowned entrepreneurs.

The second session involved master classes led by resource persons from varied fields. There were seventeen such classes that dealt with topics related to competencies, skills, knowledge and attitudes for sustainable futures.

Communicating Change



Arun Subramaniam

Arun Subramaniam has been working as a print and television journalist for the last 35 years in India and Hong Kong, writing for and managing publications including Business India, India Today, The Far Eastern Economic Review, Finance Asia and *India Business Week* for Star TV. He is a visiting faculty for Indian Institute of Journalism & New Media in Bangalore, is a director of The Sustainability Platform and advisor to 101 Reporters, a Bangalore-based grassroots journalism initiative. He has also worked as a trade union lawyer in Mumbai and a development consultant in Southeast Asia. He has co-authored the book *The Bhopal Tragedy*

SUMMERY OF THE CLASS

The master class projected the problems faced by media and news flow in third world countries, as is said recognising the problem is the first step to solution. Mr Subramaniam addressing the students emphasised the role and responsibilities of next generation journalists and said that, "The present day reporters tend to summarise the entire world news in the briefest form possible". Irrespective of the geographical area, political issues, disaster or death, the news that occupies headlines becomes the most important happening of the day. Mr Subramaniam thus defined journalism as a subjective process of writing by verifying the content by multiple sources and filtering. It is only after this that the matter becomes credible news to the public.

He explained the concept of the newly adopted citizen journalism style as not professionally credible and mocked saying it is as equivalent as going to citizen dentist or citizen doctor for treatment. Professional journalists are trained not to lie, research on the topic, ask people about the happening and verify the content through multiple fact checking. He described the human mind that functions automatically to filter what is important and what's not same as with newspaper designing. The television as medium implements repetition process because the human mind tend to forget the continuous news play and can only absorb a little at one go. Many case studies were discussed with regards to government programmes and schemes, journalist duties, duties of an educated citizenry and so on. The session ended with the remarks on the present day press and electronic media working which is more and more becoming an entertainment medium rather than presenting the actual happening

Circular Economy Pavithra Mohanraj



Pavithra Mohanraj is the Founder of Infinitive, an early-stage startup, shaping the development of the circular economy in India through capacity building, business advisory and ecosystem development projects.

Infinitive has played a leading role in shifting mindsets and building the conversation around circular economy in India, and worked with key partners and clients including GIZ India / EU Resource Efficiency Initiative (EU Circular Economy Mission 2018), the Ellen MacArthur Foundation's Disruptive Innovation Festival, FICCI and the global Circular Economy Club. Ms. Pavithra is an experienced sustainability professional with close to a decade of experience working in green buildings, sustainability consulting and circular economy, and is an invited speaker on circular economy across the globe. She also runs Sustainability

Nexus, a collaboration platform for sustainability professionals and enthusiasts in Mumbai.

SUMMERY OF THE CLASS

Circular economy is all about redesigning of waste materials. When a new product is manufactured using an item with recycled materials or plan a design to efficiently used even after it is trashed then it is waste recycled, which can be reused, refabricated, remanufactured. The goal of circular economy is to restore and regenerate system of industrial economy where it co-exist with nature and helps in reduction of waste. The strategy to work out waste is all about rethinking entire economy, for a better waste management.

The speaker quizzed students by asking 'do you have resources'? To which she said the smart way out is 'use your waste as your resources'. The speaker also touched upon biological waste and technological waste which are available in nature such as food waste which could be decomposed and the technological wastes including plastics and others materials which cannot be decomposed. Therefore, it is important to design the materials properly, so that it can be repaired, remanufactured, refabricated, reused and recycled, meaning designing a material of 'zero waste'. Further, when manufacturing a material/product care should be taken to use either bio materials or recycled materials and it should be ensured that, it can be recycled and reused. To make master class interesting and also to enhance participants' knowledge and sensitize them to the concept, there were group discussions.

Nature, Society and Economy - Contribution of Community Knowledge Dr. D. Narasimhan



- *Dr. D. Narasimhan has* Ph.D. in Botany and his areas of Specialization are Taxonomy, Biodiversity, Ethno botany and Medicinal Plants Occupation. He is an Associate Professor and actively involves himself in; Studies on Tropical Dry Evergreen Forests, Endemic Plants of Western Ghats, developing data bases and Ethno botany of tribes in Tamil Nadu, Odisha and North eastern region. **Awards/Recognitions:**
- 1. Recognized as a plant expert by various Government and Non-Government organizations and is included as a member of several advisory, consultative and technical committees.
- 2. Two of the nine thesis guided by him have been awarded Prof. R. Kalyanasundram Memorial award given for the best Ph. D thesis by the University of Madras.
- 3. Selected for Dr. V. V. Sivarajan Gold medal given for Taxonomists by Indian Association for Angiosperm Taxonomy for the year 2008-2009
- 4. Honoured by Ph. D scholars by describing and publishing a new orchid species Anoectochilus narasimhanii from Andaman Islands, a new Annonaceae (Custad Apple Family) species Orophea narasimhani from Andaman Islands and a new Grass species Trachys narasimhanii from Tamil Nadu

SUMMERY OF THE CLASS

Nature, Society and economy are interrelated with one another and interdependent. All the resources on the earth has its own rational value. Stressing on holistic approach Dr. Narasimhan advocated learning through Interdisciplinary Courses.

Introducing ethno botany to students, he said, "Ethno botony is scientific study of traditional knowledge and customs of a people concerning plants and their medical, religious and other uses". All the resources on earth have their own rights and that should be respected like "the right of water is to flow". To Increase the economy of the country the natural resources should be used in proper way rather than exploiting them said Dr. Narasimhan while talking on 'community Knowledge' which has been much acclaimed now. He made his point clear by quoting few examples; Capsaicin from ripen Chile (chilli) are now a days used in anti-inflammatory gels which was previously reported in Ayurveda. Likewise, Wood-apple, an unpopular fruit can be used in product development like jams.

Drawing participant's attention on naturally available product and its uses, the speaker spoke on various means by which one can make profit and also lead a sustained life too. He gave examples from international and national arenas like, healthy and tasty edible products developed from Jack fruit in nations like Thailand, Malaysia has converted it into one of the major source of income. Different wild

berries have been utilized in chocolate preparation contributed for improvement of social status of Manipur State. Various extinct berries are now given importance and grown widely. Different plants possessing broader leaves can be employed for packaging (Sustainable packaging materials), replacing Plastics and thus reducing pollution. Sacred Tree leaves can be used in making Plates. Large number of plants rich in saponins can be used for cleaning purposes replacing chemical detergents. He ended the session calling for a broader wider and deeper understanding though interdisciplinary approach to learn and appreciate.

Learning from Nature - Biomimicry for Sustainability *Saju Deepalan*



Mr. Depalan, did his graduation from Kerala university (B.Tech, Govt. College of engineering. Trivandrum), pursued a PG from JNU (School of International Studies). He has worked as a journalist, copywriter and HR Trainer. For the last 13 years he has been working as Naturalist in various resorts across the country, having conducted hundreds of nature treks in Kerala, TN, Karnataka and MP.

He has participated in various mammal/birds census. From 2017, he has his own company 'Biomimetic Solutions'. As a Biomimicry specialist he has done advanced study on Biomimicry from USA, with specific intention to spread awareness about Biomimicry in educational institutions and society through workshops, talks and interactive sessions.

He plans to start biomimetic (nature) walks very soon.

SUMMERY OF THE CLASS

Mr. Depalan through his master class made the session very interesting incorporating topics on biomimicing nature for developing innovative ideas for the betterment of mankind for incorporating them in our day- to-day life.

The class started with an example of how Japanese got inspired by the shape of the bird Kingfisher in designing the first bullet train. He explained us the difference between biomorphism and biomimicry which is learning from nature and not just copying. He took the students through many inventions which are inspired by the nature like Burrs which lead to the invention of Vellcro, new wind turbines which drew inspiration from the flippers of Humpback whale, a new type of pantograph with reduced noise which is inspired by owl, Namib dessert's beetle which absorbs moisture early in the morning on top of hills to keep itself moist which was biomimiced for the innovation of fog gathering nets.

He educated students on importance of, evolving in order to survive, adapting to changing conditions and integrating with growth. He concluded the class by quoting Einstein's words 'look deep into nature and then you will understand everything better".

Building Inclusive Societies – Facing the Challenge

Dr. Rithambhara Hebbar, Bhargavi S. Rao, Leo F. Saldanha & Lawrence Surendra



Ritambhara Hebbar is Professor and Dean at the School of Development Studies, Mumbai. She has over twenty years of experience in teaching and has taught both at the undergraduate and post graduate levels. She has specialized in tribal studies, specifically on tribal culture, movements for self-rule, and governance. Her publications include book titled Ecology, Equity and Freedom: Engagement with Self-Rule in Jharkhand (Earthworm 2011). The book is an ethnography of the struggle for self-rule in Jharkhand. It relocates the issue of tribal self-rule in Jharkhand to an experiment with forest restoration in a Ho village that reveals the reflexive engagement of locals over issues of ecology, science, culture and politics. Her co-authored book titled, Towards a New Sociology in India (Orient Black Swan 2016) calls for a new sociological imagination, in step with the new realities, political dispensations as well as in the practice of sociology in India. It

proposes a politically engaged sociology that is open to researching new sites through a blend of methodologies to unravel the dynamics of lived realities in contemporary India. Her recent research on security guards in Mumbai builds on this larger project, as it reveals the obscurity of dominant characterisation of village, caste and kinship in their narratives about life and work in the city. She is also engaged in a research on tribes in South India to comprehend the nature of anthropological and sociological research on them, and the contemporary situation of tribes in the region. Her other areas of research and writing include Social Institutions and Development Experiences; Rurality, Rural society and Social Change; and Sociology and Social Anthropology in India. She teaches on related themes such as Understanding Indian society, tribes in the contemporary world (focusing on tribal anthropology and cross-cultural perspective on tribes); tribes in India, qualitative research- approaches and methods, methodological issues in development research, social exclusion in India, environment and society, anthropology and development.



Ms.Bhargavi S. Rao works on the intersections of community action with law, policy, planning and governance. She has 25 years of experience across research, advocacy, campaign and teaching in the development sector. She has played a leading role in research, mobilization, advocacy, and training on a variety of human rights, governance and people-centred efforts in areas of environmental and social justice. Post a couple of years of research in the Microbiology and Cell Biology Department at the Indian Institute of Science contributing to research on Rotavirus, she worked as a lecturer, teacher and has been with the development sector. She joined Environment

Support Group, a Voluntary, Not-for-profit, and Public Interest Organisation in 1999 and has been a part of many grassroots movements that focused on access to water, land, seeds and livelihoods in urban and rural areas.

Her research includes environmental decision-making processes in the context of Mega Infrastructure Projects, Biodiversity, Bio Piracy, Waste Management, Lakes, Thermal Power Plants, Mining, Sustainable Urban Mobility, Urban Ecology, Governance, Pollution, Public health, Commons and Traditional Livelihoods. Her skills are in policy analysis, interpreting legal provisions, project planning, grant writing, fundraising, networking, campaigning, legal research, teaching and developing research tools and educational materials. In this journey she has worked with Government agencies, Judiciary, NGOs, and Educational Institutions, Local communities, and the public and funding organisations.

She was Co-Director, IHP (SIT World Learning), MSID (UMN) and many faculty led Study Abroad programs from various Universities from USA, UK and Europe. She is guest faculty and speaker at many Universities abroad, local Educational Institutions and Corporations. Has been a consultant to the Environment Management Policy Research Institute, Green Foundation, United Way and many Start-ups



Leo F. Saldanha is full-time Coordinator of ESG. He has gained wide-ranging experience in the areas of Environmental Law and Policy, Decentralization, Urban Planning and a variety of Human Rights and Development related issues, working across many sectors for over a decade. He is a keen campaigner on critical environmental and social justice issues and has guided several campaigns demanding evolution of progressive laws and effective action. He has creatively supported various distressed communities to secure justice through public interest litigations and advocacy efforts, arguing as party in person several public interest litigations, many of which have resulted

in remarkable judgments. In 2007, he co-authored the book "Green Tapism: A Review of the Environmental Impact Assessment Notification-2006" (2007) with team members at ESG. He has since co-authored "Tearing through the Water Landscape: Evaluating the environmental and social consequences of POSCO project in Odisha, India" (2011), "Forfeiting our Commons: A Case for Protecting and Conserving Challakere's Amrit Mahal Kavals as Livelihoods-Supporting, Biodiversity-Rich and Ecologically-Sensitive Grassland Ecosystems" (2013), and a comprehensive review report of Environmental Decision Making in Karnataka State, in particular the State Environmental Clearance Committee (2014), amongst others. His papers and articles have appeared in many leading new papers, journals and magazines. Recently, he has contributed papers in "India's Risks: Democratizing the Management of Threats to Environment, Health and Values" (OUP, 2014) and "Living Rivers, Dying Rivers" (OUP, 2015). Mr Leo facilitates a variety of learning programmes on environmental and social justice concerns for a wide range of audiences. He was the Country Coordinator and Faculty of the "Cities in the 21st Century" and "Health and Community" courses of the International Honours Programme, USA (2002-2009) and Co-Director of the Minnesota Studies in International Development, University of Minnesota (2014-2017). He has a background in Environmental Science and has been

invited as a speaker by organisations and universities across the world. In August 2010, he was invited as a speaker at the International Forum on China's Rural Reform in the 12th Five-Year Plan Period organised by the Chinese Institute for Reform and Development, a Chinese Government think-tank for reform in policy decision-making. In recognition of his contribution to environmental and social justice efforts, Association for India's Development, USA, made him their first Saathi.

SUMMERY OF THE CLASS

All the speakers initially started with the discussion of India as an inclusive or exclusive society, as an interactive session with the students. Later they shifted their focus on reasons for exclusiveness in terms of opportunities including issues like caste, money (rich/poor) religion and so on.

They deliberated on social status of *dalits*, lower caste, and those of the upper caste life styles, and resources of various lifestyle of people and concluded saying that, 1% of the Indian population controls other 78% (lower or middle class) of Indian population.

Mrs. Bhargavi focused on issues like that of drainage and other wastage of Bangalore city which had landed up in *dalit* village and also, government neglected the needs of the *dalit* in that village. While sensitising students on the issue she asked, 'why is that the garbage is dumped in village?' and also asked 'how do make our cities sustainable?' She added that, only people support and involvement can bring the sustainable development in our cities and unless there is participation of people, things will be same. Then later she gave some of the Mavallipura where there is no power and other basic facilities which is situated only 8 kms from International Airport, Bengaluru. She also spoke of 73rd and 74th amendment to the constitution of India.

Addressing the class, Ms. *Ritambhara Hebbar* from Tata institute, where has she handles the class on life style of *dalits*, access towards the social exclusion and different kinds of social exclusion in India deliberated on the fact that exclusion not just in terms of money but also in different issues.

She stressed on the role of a social worker in bringing the inclusive development. Giving example of village community she interacted with students, bringing out the importance of respecting difference of opinions for a healthy society. Then she focused on the forest people and spoke about their indigenous knowledge in managing the resources in best way possible.

Forest people have ethics. They are conscious about forest and to quote she said "land doesn't belong to us, we belongs to the land"., this mantra makes difference between city people and forest people .She also mentioned there is lot to learn from excluded people on issues like how to manage resources, how to conserve resources and so on.

Later, the speakers asked a question 'can we build society which is truly inclusive?' and had discussion with students and stressing on constitutional methods to bring in inclusivity they said that, inclusivity is practiced in many places to dissolve the problems which is arising from exclusiveness.

Disaster Risk Insurance

Mr. Balaram



Mr. Balram has completed his B.Tech in Textile Engineering from Bangalore University and M.Tech from IIT-Delhi. He joined the Oriental insurance Co. Ltd.,in 1988, as Risk Management Engineer and is presently posted at Bangalore Regional Office as Regional Manager in Fire and Engineering Department

SUMMERY OF THE CLASS

The speaker addressed on the due importance of Disaster, Recovery and Rehabilitation. Disaster is a natural phenomenon and is a serious issue in today's scenario. He briefed about the concept of disaster and its types. Later, he explained how various natural disasters occurs by quoting the examples of Kerala and Kodagu floods.

He added that, the effects of disaster are unimaginable and sometimes it's irreparable too. People are vulnerable to the disasters. The recent disaster showed that the calamity contain some unwelcome characteristics and extremely far ranging effects and at the same time, difficult to counter also.

The speaker elaborated on the risk covering aspects by giving the various insurance plans that are availed by the Govt. and Private organizations. Recovery is the most Herculean task as it involves many difficulties and threats to the life of the people. Yet, insuring the life of the person would help in minimizing the loss and burden on the family. He gave suggestions and plans to be followed to overcome from the risks that would occur by the disasters.

The Session was an eye opener to the participants. It was interactive one too. The class also touched on subject related to various insurance plans and policies with regards to the central subject.

Data Analytics for Sustainable Development

Mr. Ram Ramanujam



Ram is an entrepreneur and is the founder of Predictly Tech Labs an AI start-up that solves the unstructured data problem in enterprise. His motivation to work on unstructured data originated from the fact that more than 80% of data in organizations is unstructured and a lot of information & insights are wasted due to unused data. He believes that, Data is the "New

Oil" and unstructured data is "Crude oil" and we have the refinery to distil it.

Ram started as a marketing professional for two decades after an MBA from Indian Institute of Management, Ahmedabad, and he has worked across the marketing roles as client and agency, as operations and strategy; as creative and analytics.

SUMMERY OF THE CLASS

The resource person started the session by giving the basic ideas on data analysis. First he introduced the participants to data then he moved on to big data. He explained the types of data which includes descriptive, predictive and prescriptive. He also gave brief information about data mining with the example of story 'no free lunch". Data mining includes three steps; input, process and output. He focused on data science and apprehended that, it is a combination of mathematics, statistics, and computer science and business knowledge. Traditional resources are an intersection of maths, statistics and r business together is machine learning. Intersection of computer science and domain is software development.

The resource person also discussed about Artificial Intelligence which includes Machine learning, deep learning and data scientist. He explained the applications of Artificial intelligence and showed many artificial intelligence related humanity.

Finally the resource person showed a series of videos explaining the concepts related to data analytics which was useful for us to come to a conclusion on what is data analytics for sustainable development.

Greening of Campuses

Mr. Ravikumar S.



Ravikumar S is a graduate in B.Com, and Post Graduate in Human Resource Development. He's the proprietor of Green Technologies, an Environmental Engineering Company, providing end to end solutions in Green Buildings, Rainwater Harvesting, Watershed Programs, Solid Waste Management, Bio Methanation, and Aerobic Composting. Green Technologies has implemented more than 2000 Rainwater Harvesting Systems, around 200 Solid Waste Management systems across India. He's also the managing trustee of Full Circle Trust a Bangalore based, registered Non-Profit Organization, since its inception in the year 2010 Full Circle has

been promoting Rainwater Harvesting and Solid waste management. Through Full Circle Mr. Ravi has conducted several Awareness and training programs for School and College students. Full Circle Conducts Green Ambassador a Short term certificate Course on urban environmental issues for school and College students. So far more than 5000 students have completed the course. He has been awarded Bangalore youth Icon Award in 2017 for work done in Solid waste management

A green campus supports the concepts of sustainable environment and economic sustainability. There are lot of benefits by green campus like, saving the energy and resources which improves the environment. By using the natural wastes produced in the campus, the campus can be made green

- 1. Collecting the wastes and recycling
- 2. By using solar panels
- 3. Using bicycles in the campus
- 4. Consumption of water
- 5. By helping biodiversity grow in camps.

The following are the methods in which energy can be conserved and utilized for many purposes like

- 1. Cooking by adopting biogas plant
- 2. Using solar car panels
- 3. Using electrical vehicles by the consumption of solar energy
- 4. Solar cells, batteries etc,

By following the above methods we can conserve our biodiversity in the current scenario. A sustainability audit by students and staff can serve as a tool for planning, goal setting and measuring progress. It is also an opportunity to learn how sustainability issues arises in day to day decisions. He stressed on the need to provide a research and study environment that meets world's best sustainability practices. Adopting an online waste sense service giving users the ability to advertise and search for items online more comprehensively but also to see the total financial and carbon savings linked to the schemes will help achieve sustainable goals. Further he added that, there are efforts being done for creation of the biodiversity working group, new source of recycling waste are being explored including used banners and electronic waste.

Inequality in Global Taxation system- is it an impediment for the financing the SDG's

Jahanzeb Akhtar



An officer of the 1989 batch of IRS, currently posted as Principal Commissioner of Income Tax in Pondicherry. She has an academic background in Public Policy, Law and Sociology with a number of publications to her credit. As a recipient of the prestigious Fulbright Fellowship in 2015 she spent substantial time during her year in the United States working on issues of global tax justice. This included a policy paper written for the Ambassador at the Permanent Mission of India to the UN in New York. She regularly addresses students and professionals on matters of ethics, gender, minority and development.

In the run up to the execution of the SDG's the major impediment could be financing. It is estimated that nearly 3.4 to 5 Trillion Dollars is required to achieve these SDG's.

ODA (Official Development Assistance) was maintained in the capital surplus countries such as USA, UK etc. wherein, 0.7 of GNI would be contributed to poor countries to achieve their development goals, but this has not completely materialized owing to several political and vested interests.

The speaker focussing of taxation said that, the major effective way of financing for countries is taxation because it is legitimate and democratic. Much of the share in total taxes collected is comprised of corporate tax revenues therefore, it is imperative that, there is effective extraction and collection from this segment. The challenge however in that is of tax evading and tax avoidance by capitalizing on legal loop holes by these corporate houses. A common method adopted is treaty shopping which is essentially a move by firms to look at DTAA (Double Tax Avoidance Agreement).

Speaking on world taxation scenario Ms. Akthar said, tax regulation body pan world hasn't been adequately stabilized which is causing these ivory companies to shunt the tax authorities and make wind for games in their profit by not paying taxes properly. As of now OECD countries set the rules for the tax structure globally this has garnished several criticisms from the international community.

The firms involving in smart tax avoidance or even evasion ensure laws such as arms length pricing, transfer pricing to perpetuate dispute is being detrimental to the national interests. Huge firms have co-opted the system by subverting laws and provisions to suit their interests. The problem is quite severe as the tax in countries like Bermuda with 0% CIT these ivory companies have brought about a global annual tax loss of about 500 US Dollar Billion using offshore shell companies in these tax havens. Coming down heavily on tax evaders the speaker addressed audience saying that, it is estimated that there are 32 US Dollar Trillion offshore assets of these companies and individuals. These realities have promulgated the issue of inequality and has severely undermined efforts to achieve the SDG's she emphasised.

Responsible production and Consumption – Supply Chain Management for Sustainability

Ms.Ipshita Chaturvedi



Ipshita Chaturvedi is the founding partner of C&C Advisors – India, first law firm dedicatedly working on sustainable development and advising both the private and public sectors on environment and energy related matters. She has over 10 years of experience in the field and has worked with European and Middle-Eastern governments on trans-boundary water negotiations, biodiversity, and supply chains as well as the Convention on Biological Diversity in Montreal on Article 8 (j) issues. She is a member of

IUCN's World Commission on Environmental Law and an expert under World Bank's Partnership for Market Readiness, and an alumna of NUJS, Kolkata and the University of Melbourne. She is a visiting lecturer at TERI University and other leading law universities in India

SUMMERY OF THE CLASS

Drawing the attention to Goal 12 in SDG, Ms.Ipshita Chaturvedi said that, "SDG 12 is about responsible consumption and production. This has linkage with supply chain". Goal 12 talks about achieving economic growth and sustainable development required for reducing the economical footprint by changing the way of production and consumption of goods and resources.

She feels that, the greatest challenges in achieving responsible consumption and production are controlling consumer behaviour and sustainability across supply chains and hence supply chain network which are structured with mainly five key areas: expert suppliers, production, distribution centres (DCs), demand zones and transportation assets are to be transparent and well connected too. The network is high on economy and low on sustainability. She also spoke about the overuse of natural resources which will lead to depletion and extinct of them from our earth. She advised the students to use sustainable products which was followed by an interactive session on making economic activities sustainable.

Management Education for Sustainable Businesses Dr. Shamama Afreen



Shamama Afreen is a teacher and researcher, with a deep interest in issues related to sustainability, environment and policy. She has been a faculty at the Indian Institute of Management (IIM) Lucknow, where she headed the Centre for Business Sustainability and helped launch and establish the two year Post Graduate Programme in Sustainable Management. She has taught courses on corporate sustainability, business and human rights, stakeholder management, corporate social responsibility among others. After acquiring a Doctoral degree from IIM Calcutta, she worked as a Post-Doctoral Research Associate at Indian Institute of Science, Bangalore. Her teaching and research interest center around business

sustainability, corporate social responsibility, environment and policy, management education and sustainability, climate change, and governance and management of natural resources. She is currently teaching as a Visiting Faculty in the Centre for Society and Policy, Indian Institute of Science, Bangalore.

Dr. Shamama Afreen started her class with various examples of corporate companies which faced a crisis due to non-environment friendly product manufacturing like British Petroleum GHM emission issues, in 2001 Dutch Government blocked Sony's European shipment of PlayStation and many more. That way she explained how the corporate companies have a responsibility to achieve sustainability. She suggests seven concerns where companies need to take responsibility;

- 1. Pressures from increasing stakeholder expectations
- 2. Limited natural resources
- 3. Environmental issues are becoming global
- 4. Health concerns are rising
- 5. Energy supplies are a significant threat
- 6. New opportunities
- 7. Sustainability generates multiple unintended benefits

Continuing Dr. Shamama Afreen described how overconsumption leads to over shortage and also put forth models and chart to show to how to conquer problems to achieve sustainability. She advocated sustainable options for business sustainability in the 21st century including product design – design for environment, biomimicry, Product redesign, converting products to services, extended producer liability/product stewardship, life cycle assessment, zero waste systems and most important of all mindful consumption.

This session helped students to understand the concept of sustainability and the need for the same. Further she discussed why we are? Where we are today? And what needs to be done to bring back the natural balance? The session gave overall view on sustainability trends around the world.

Towards Holistic Health Systems Dr. Manju Reddy



Manju's philanthropic focus is early childhood development specifically creating effective tools to foster optimal success in the first twelve years of a child's life. She is passionate about improving learning in K-10, addressing factors that influence early cognitive development and unequal outcomes facing underserved children. She addresses these topics through the non-profit organisation Arodhum International' that she founded. Previously, Manju did clinical and research work in neurocognitive and neuropsychiatric disorders across life span. She received M.Phil. from the National Institute of Mental Health and Neurosciences (NIMHANS) Bangalore, India, and Ph.D. from the University of Wisconsin, Milwaukee., USA. After a two-year fellowship in the department of Psychiatry at the Johns Hopkins University, she worked as a research scientist at the University of Maryland, Baltimore and then as an assistant director of defense and veterans

brain injury program (DVBIC) at the Walter Reed Army hospital, Washington D.C. The class will engage and explore with the audience: 1. As an emerging economy, valuing India's human potential with all its diversity 2.

Defining India's human potential that is linguistically, culturally, socially, economically diverse. 3. How does whole some well-being of this large population play out for the next three decades? 4. How does this large populace narrate and define with the UN SDG goals and planetary health? 5. Lastly, Arodhum's children's preventative health care model of comprehensive wellness to address UNSDG goal #3

SUMMERY OF THE CLASS

She began the lecture by comparing the class gender ratio to the overall interested statistics number of individuals concerned about health. Women as she pointed out, are always more worried about health than men because she has the power to change the family being a decision maker. She said the western perspective towards healthy living is based on information on everything with facts that has a culture to read and ask questions. There are 17 goals proposed by UN. The Goal three is all about good health and wellbeing. It concentrates on how to reduce some of the common killers associated with child and maternal mortality. She ended her class by quoting words of Secretary General of UN- 'We are in a world in which global challenges are more and more integrated and the responses are more and more fragmented, and if this is not reversed, it is a recipe of disaster'.

Dr. Murlidhar, Ayurveda and Allopathy medicine expert joined the class to enlighten the class about Indian practices to prevent and cure disorders. He spoke on the origin of Ayurveda as shoot out from Atharva Veda and partly from Rig Veda. In Sanskrit grammar, 'Ayur' means all events that happen to an individual from womb to tomb. So, Ayurveda is science of life to be healthy and what principles to be adopted throughout life. The mode or medium for prevention or cure of any disease is by materials from animal origin, herbal and mineral elements. He questioned audience by saying, when humans can catch big animals like elephant and whales, why don't they catch their brain cells and utilise them to lead a better healthy life. The class ended on the note that healthy youth can bring in change towards achievement of UN Sustainable Development goals.

Understanding and Working with Intellectual Property Regimes

Ms.Sumitha Vibhu



Ms. Sumitha Vibhu studied in B.L. Ambedkar Law College, Chennai and B.Sc. Mathematics at Meenakshi College for Women, Chennai. She has 20+ years of experience at the bar and 18+ years of experience in the field of IPR. Her areas of expertise include Patent Drafting & Filing, Trademark Registrations, Copyright Registrations, Design Registrations, IPR Litigation in all forums, IP related agreements including technology transfers; Non- disclosure, Licensing etc.

The session aimed at creating the awareness regarding the basic principles of intellectual property rights. Under this many topics were discussed including acts under protection, the procedure for filing application, patent act, the types of applications, the procedure followed for international protection, the inventions which are not patentable and remedies available under the act.

The session emphasized on the statutes like trademarks, service marks, design, copy right, geographical indications and semiconductor integrated circuit. An elaborate discussion on the eligibility to apply, protection available, criteria and procedure for registration, remedies available and legal requirements under these statutes took place.

Finally, information regarding the protection of plant varieties and farmers' right, trade secrets and exceptions were deliberated upon including details of how to apply, what is the protection available and criteria for registration. The class successfully created basic awareness on IPR and its implications.

Renewable Energy and creating off-grid solution

Sudhir G. Kulkarni

SUMMERY OF THE CLASS

The lecture was started with a talk on renewable energy in which Mr. Sudhir apprised the necessity of renewable energy. He told that non-renewable sources will be depleted in upcoming years and the renewable energy sources hold the torch of hope.

While talking about renewable source, he pointed to solar energy which was discovered by French Scientist Alexander Edmond Becquerel in 1839. Solar energy can be used in many ways like lighting, education, healthcare, livelihood, agriculture and entrepreneurship. In his lecture he told the students that now the electricity and other basic amenities can even reach to remotest part of India if we use solar energy. He ended his talk by quoting Swami Vivekananda, "They alone live, who live for others".

Disaster Risk Reduction- Climate Change and Resilience

Mohan Montario Fr. Staney D. Almeda

SUMMERY OF THE CLASS

The session had a panel talk on 'Disaster Risk Reduction- Climate Change and Resilience. The session was led by Mohan Montario, Lecturer, Vidya Vikas Engineering College, Fr. Staney D. Almeda, Director of ODP, Mysuru. Fr. Almeda initiated the topic with the case study of Kodagu disaster. He explained the support measures taken by ODP to help the lives of disaster struck families. The other

panellist, Dr. Sanjay Srivatsav, Scientist from ISRO spoke on risk reduction and climate change. This was followed by a talk on 'Sewage to gold' by Mr. Tharun, Zero Power Natural Sewage Treatment Plants (ECOSTP). He spoke to the participants on natural and ecological based sewage treatment and the lessons from the Chennai floods. Mr. Lawrence Surendra took over the panel discussion focusing on the disaster preparedness.