


**Social Innovation in Industry 4.0**  
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**Lecture 52**  
**Summarizing the Course**

Welcome to yet another and the last lecture in the course Social Innovation in Industry 4.0, I am Dr. Amandeep Singh. I am going to summarize the whole course in this lecture.

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**Summarizing the Course**



**Week 1**

- ✓ Why is Social Innovation Necessary
- ✓ Social Innovation as a Unique Concept
- ✓ Social Innovation and Industry 4.0: The Relation

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**Week 2**

- ✓ Use of Social Innovation in Industry 4.0
- ✓ Core elements and Characteristics of Social Innovations
- ✓ Types of Social Innovations
- ✓ Sectors for the promotion of Social Innovation
- ✓ Process of creating Social Innovations

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So, we are just Summarizing this Course, we see that in the week 1, we try to understand Why is Social Innovation Necessary, where the introduction to Social Innovation was given. And, as it is able to address the complex social problems and encourage collaborations, this was discussed in the week 1.

And, Sources of Social Innovation and why it is a Unique Concept. This was discussed in second or third lecture of week 1 and in the Social Innovation and Industry 4.0, what is the relation between them, why is Industry 4.0, what is the potential of Social Innovation for Industry 4.0 or what are the applications of Social Innovation and understanding the Social Innovation in the context of Industry 4.0, this was taken in week 1.

In week 2, we started with Use of Social Innovation in Industry 4.0, that is challenges and ethical considerations were discussed here. The skill development and training, now it is required provided a technological developments are there, the software skills are also required, then inclusive growth and social welfare that were discussed here, then the Core Elements and Characteristics of Social Innovations that is what are the Core

Elements, the examples were given, initiatives, social entrepreneurship in Industry 4.0 were discussed here.

The Types of Social Innovations that is we have social judicial, social cultural, socio-political, socio-economical, social organizational, different kinds of Social Innovations were there which were discussed in this lecture and in week 2 also some light was set down the Sectors for the promotion of Social Innovation, different sectors such as urban planning, poverty alleviation, civic engagement, art and culture. These were discussed and processes for creating Social Innovations were also discussed in week 2, where different processes and the stages for them which were maybe the observation stage to the systemic change everything was discussed in the week 2.

**Summarizing the Course**

**Week 3**

- ✓ Value creation from Social Innovation
- ✓ Value proposition, construction, Development and Validation
- ✓ Definition of values generated by Social Innovation
- ✓ Case studies; Entrepreneurship and Social Innovation

**Week 4**

- ✓ Design for Industry 4.0
- ✓ Design for Social Innovation
- ✓ Design for Social Innovation, Examples

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Then, we came to week 3, where Value Creation from Social Innovation was discussed by Professor Ram Kumar that is impact and outcomes of Social Innovations, multiple dimensions of value in Social Innovation because there are three values, economic value, social value and environment value, these were all discussed. Then, Value Proposition, Construction, and Development and Validation, these were taken, that is key elements of all these factors were taken and Value Proposition, Communication was also discussed.

Then, Definitions of Values Generated by Social Innovations, that is different definitions taken from the different view points social, economic, environmental, institutional different Definitions were taken here. Then, certain Case Studies were given, Regarding Entrepreneurship and Social Innovation. In these Case studies, the cases which characteristics different roles of social Entrepreneur was also taken here. Then, in the week 4, Design for Industry 4.0 that is the role of Design in Industry, Design Thinking, Industry 4.0 Design Principles were taken.

Then, Design for Social Innovation, that is trends and challenges in the design for Social Innovation and the benefits of design thinking were discussed here. Then, Certain Examples of the Companies for the Design for Social Innovations were given in week 4.

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**Summarizing the Course**




**Week 5**

- ✓ Costing and Finances
- ✓ Cost Estimation in Social Innovation
- ✓ Cost Estimation Methodologies
- ✓ Financial Planning and Social Impact Assessment

**Week 6**

- ✓ Creativity Tools and Techniques
- ✓ Digital Innovation



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Then, in week 5 Costing and Finances were discussed. In costing and finances, the financial management principles for Social Innovation, Cost analysis, classification of cost, budgeting, Cost Estimation in Social Innovation, Cost Estimation models, different kind of models which are available which model to pick.

Then, estimating research and data collection cost everything was part of the Cost Estimation part here. Then, Different Methodologies of Cost Estimation such as expert judgement, analogous estimate, parametric methods were there, in parametric, there were three point estimate, then bottom-up estimate, reserve analysis, these were all part of the Cost Estimation Methodologies.

Then, Financial Planning and Social Impact Assessment, which is an important kind of an assessment to understand the social impact and to also understand the costing of the system, this was discussed in week 5. Week 6 only majorly focused on the Creativity Tools and Techniques. In creativity tools and techniques, different kinds of the thinking that is creative thinking, divergent thinking, convergent thinking were discussed by professor Ram Kumar.

Then, certain divergent thinking techniques were there, and certain tools of convergent thinking were there, such as SWOT analysis, decision matrix these are all taken. Then, Digital Innovation was shed some light upon, in which what is Digital Innovation, this was discussed and some examples of them were also taken.

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## Summarizing the Course



### Week 7

- ✓ Introduction to IPR
- ✓ IPR in Social Innovation, MedTech



### Week 8

- ✓ Design and Social Innovation in Medical Devices
- ✓ Classification and Regulatory Process of Medical Devices
- ✓ Design and Social Innovation in Agriculture Machinery



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Week 7 was focused on the IPR, that is Intellectual Property Rights, in which what is difference between patents, copyrights, this was given, the specifications of a patent, then IPR in Social Innovation specifically in MedTech, this was discussed here. The patent filing procedure was discussed within India what is the procedure, what are the IPR strategies, internationally what are the trademarks and copyrights, these were all discussed in week 7. Week 8 discussed about Design and Social Innovations in Medical Devices.

Here, medical devices regulations, the process of medical device development, the quality management system that is ISO 13485 and other management systems, which were discussed in Classification and Regulatory Processes that is the ISO system, which I just mentioned, were also discussed here, and the classification in the different parts of the world majorly in Europe, in US and India, this was taken in this lecture in week 8.

The last lecture of week 8 talked about the Design and Social Innovation in Agriculture machinery. In Agriculture Machinery, what are the different regulations, what are the principle and challenges, so what are the safety considerations, these were all discussed in week 8.

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## Summarizing the Course



### Week 9

- ✓ Rapid Prototyping
- ✓ Rapid Prototyping Techniques
- ✓ Rapid Prototyping, Laboratory Demonstration 1
- ✓ Rapid Prototyping, Laboratory Demonstration 2

### Week 10

- ✓ Social Innovation Team and Hierarchy
- ✓ Foundations of Organizational Culture
- ✓ Organizational Culture in the context of Social Innovation

Then week 9 talked about the recent Industry 4.0 technology, that is Rapid Prototyping, how to rapidly bring your product into the physical form or into a digital form, this was discussed in week 9.

Then, Rapid Prototyping Techniques, different techniques for different kinds of material was discussed in week 9. whether it is liquid material, whether it is solid material or whether it is in the powder form, this was discussed. Then, two Laboratory Demonstrations were there, the first one was for the Metal X printer. In which the metal 3D printing part was taken care, and the second part was only about the software for the Rapid Prototyping, that was taken in week 9. Then, week 10 talked about the Social Innovation Team and Hierarchy, in which what should be the organization of the Social Innovation team, types of the team in Social Innovation, the key elements of effective team dynamics, team hierarchy, these parts were discussed here.

Then, Foundations of Organization Culture here, that is symbolic interpretive. And, functional and postmodern systems were discussed here. Then, the kinds of the foundations of the Organization culture such as clan, adhocracy, market, hierarchy and purpose, these were also taken in the week 10. The Organizational Culture in the Context of Social Innovation, so what kinds of diversity and ethics are required in Social Innovation, this was taken in week 10.

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## Summarizing the Course



### Week 11

- ✓ Introduction to ESG
  - ✓ Choosing the Right ESG Framework
  - ✓ ESG Gap Analysis and Carbon Crediting
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### Week 12

- ✓ Introduction to Social Marketing
  - ✓ Social Marketing examples
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Week 11 talked about ESG, that is Environmental Social and Governance, where ESG frameworks, ESG raters and rankers and ESG standards were discussed, different frameworks available at a different parts of the world were discussed and Carbon Credits were also talked about, Carbon Credits Challenges in India, these were taken here.

Choosing the Right Framework, the steps to Choose the Framework, the Analysis of the Gap, then to fill the Gap, then to take the action plans, so as to develop the matrix as per the requirements, as per the mapping of our company's goal with the framework structure, this was taken in week 11. Week 12 talked about the Social Marketing, Social Marketing that why is marketing necessary in the social environment.

It is first some history of social marketing, theoretical frameworks of social marketing and four Ps of Social Marketing and the process of it, is discussed in week 12 and Some Examples are taken, so as to solidify the concept which have been understood in the overall course. Research method in Social Marketing, in public health, in social causes, in the data and decision for social marketing, this is taken in week 12. With this, this course has covered majorly what was given in the syllabus of the course in the beginning.

Though Social Innovation and Industry 4.0 are different concepts. In the technology, it is definitely required to actually implement the Social Innovation targets, that is set by the entrepreneur, that is set by the individual, that is set by the group who is working in this direction. Hope, this course has enhanced your knowledge and you will be able to implement some of the concepts in your actual practices.

Thank you.