

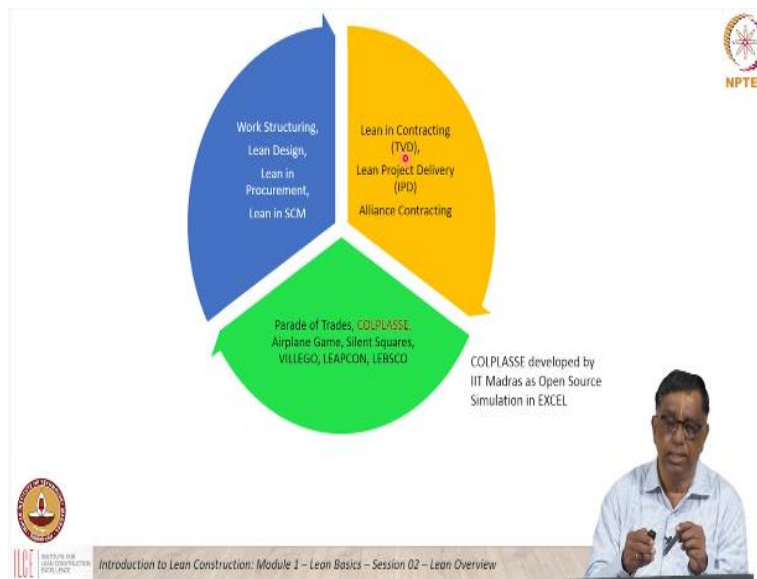
Introduction to Lean Construction
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Lean Overview – Future Module

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The slide features a blue header with the text 'S02.06: Future module'. Below the header, the text 'Learning objectives' is followed by a bulleted list: 'To introduce the future module contents', 'Work structuring, Lean Design, Lean in Procurement, Lean in SCM', 'Lean in Contracting (TV D), Integrated Project Delivery (IPD)', and 'Simulation (Parade of Trades, COLPLASSE, Airplane Game, Silent Squares, VILLEGO, LEAPCON, LEBS CO)'. A small inset video shows Professor N. Raghavan speaking. The slide also includes the NPTEL logo in the top right, the IIT Madras logo in the bottom left, and the text 'Introduction to Lean Construction: Module 1 – Lean Basics – Session 02 – Lean Overview' at the bottom.

In this section S2.06 we look at the Future Module, that means some other topics which we are going to cover later for example, the work structuring which may come up briefly in as part of CPS or Collaborative Planning System, Lean Design, Lean in Procurement, Supply Chain Management, then there are a number of contracting models in lean, like Target Value Design, IPD and so on and there are many many simulation softwares available we can look at them also later.

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Supplementary Module

Link (to read and contribute)
<https://tinyurl.com/yfmc8ba>

Topics to be Covered Slide

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The first part you look at what structuring for example, is a starting point for Collaborative Planning System where we look at the overall organization of the work, what is the method we are going to adopt the basic method, what kind of resources would be required, what is the organizational structure, what is the overall time period and broad sequencing of work and so on. So these aspects are required for you to make the milestone schedule or master schedule and the phase schedules.

So for making these two work structuring is important, I will cover that later. Lean design is again very fascinating, how do we get all the concerned stakeholders to come to the

Big Room, stay together and do the lean design, the lean design dependency matrices are there, there are a number of interesting processes to tackle in lean design.

Then with the practice of lean particularly CPS, our certainty levels increase considerably, so the supply chain management can be organized more efficiently and something called just in time deliveries, just in time management and reducing your work in progress, reducing the cash flow requirements, there are a number of possibilities in the supply chain management which we can look at later.

Then when you have the contracting model, the conventional model which we have right now is very inefficient, it is based on distrust, there is no commonality between the approach of the client and of the contractor. So target value for example many times when you have a particular budget in mind, the owner develops the complete design and the model, looks at the cost after doing going for contracting and then decides 'oh I cannot afford this', then he do some chopping and curtailing something ad-hoc basis then the functionality gets lost, you may come to your cost but the functionality may get impacted.

In target value design, the owner, the architect and the designer, they work together with a common objective of a particular value or a cost with the functionality and then achieve the objective in efficient manner and then when the consultant architect and the owner work together we have the IPD model and you bring in the contractor also into the group, you have the alliance model.

So, alliance model is very attractive, very efficient and really collaborative but then that requires a very high level of maturity between all the stakeholders. We had a few examples in the world and also in India in the alliance model, difficult to achieve but then it can yield tremendous value if properly practiced.

Then we have a number of simulation games which are available to illustrate the concepts of lean and also to practice them, from IIT Madras we have developed a simulation tool called COLPLASSE, Collaborative Planning System Simulation which is based on with open source based on excel sheets, so we will come to it and will see that later in a future module.

So, please look forward to all these developments in NPTEL we will bring them to you at a future date, all the best, thank you.