

**Tata Centre for Technology & Design & Shailesh J Mehta School of Management  
at  
Indian Institute of Technology Bombay**

**MNG 630 - Technology Design and End-to-End Innovation – II (January-April 2018)**  
Institute Elective

**Course Outline**

We will meet once every week for three hours every Wednesdays from 11 am to 2 pm in CR2, first floor, SJMSOM Building (except for the Session 0, which is a brief session for introducing the course and this will be held on Friday 5<sup>th</sup> Jan. 2018).

**Instructor:** Arti D. Kalro  
2576 7754

**Email:** kalro.arti@iitb.ac.in

**Phone:** 022

**Meeting the instructor:** By appointment, through e-mail. All email correspondence should have reference to MNG 630 in the subject line.

**Course Learning Objectives:**

MNG 630 (builds on MNG 629) and intends to enable Tata fellows and other master's and doctoral students to

1. apply the conceptual knowledge learnt in Pro-Seminar-I (MNG 629) on real-time projects (including the Tata projects);
2. understand broad frameworks used in Social Entrepreneurship (like Go-to-Market Strategies, Diffusion of Innovation, New Product Development process, Systems Thinking Approach, Design thinking, B-plan, Business Model) using documented & real case studies & industry interactions
3. learn different problem-solving approaches and research designs (both qualitative and quantitative) for need identification and need validation;
  - You will also learn to use these qualitative and quantitative research techniques on your own projects and learn how to operationalize constructs to develop testable hypotheses; and develop valid and reliable data collection instruments and understand what statistical approaches to follow, for your respective BoP-related projects;
4. formulate a scholarly reporting style and learn effective communication skills in project ppts.

**Evaluation Pattern:**

Class Participation (Individual)	5% (Disclaimer: there will be a huge 'to-do' list before every class!)
Attendance	5%
Case Summary & Activities (Group)	15% (best three out of many)
Conversing about your Projects	10% (Defined deliverables and metrics will be circulated) – Mid term

Research work on Projects (discussed)	30% (Fieldwork, PPT & Report - deliverables will be discussed)
Final end-term	30% (Details will be discussed in the class)
Journals from the Field trip (assignment)	5% (Applicable to Tata Fellows, others will be given another assignment)

### **Pedagogy:**

The course will have both perspective & skill building approach. This is an entirely research & activity-based course. Every student will have to read all the pre-readings (cases, articles) thoroughly and critically. One individual/group (chosen randomly) may be asked to present the summary to the class. Presenting the article does not entail making a Power Point presentation; it may involve a 1-2 page summary or discussing the same orally in class. Post the case discussions, faculty will in-detail discuss the concept(s) for that session, to get a clear conceptual understanding of that topic. These may be in the form of class lectures, activities, videos and so on. There will be guest lectures, movies and in-class and field activities (related to your projects) throughout the semester.

**Case Studies:** Students will be evaluated individually on class participation and groups will be evaluated on providing solutions to the problems presented in the case. The problems will be given along with the case or after reading the case, depending on the topic of discussion. The case solutions have to be emailed to Dr. Disha Bhanot (disha.iitb@gmail.com), before entering the classroom. If you have any free riders in your group, make sure to report it to us, rather than suffering in silence 😊

**Tata Project:** The non-Tata fellows in the course may join with another Tata fellow or identify an independent problem *relevant to the BoP segment problem solving*. ***Tata fellows will have to work on their defined Tata Centre thesis projects.*** The idea behind this approach is that you must start working towards your thesis and use this course as a platform to refine your project. The project should definitely draw on the material in this course, though it may be applied to your domain.

The project mid-semester presentation should use the following structure: (one slide for each)

- Introduction & Motivation for the Project (you may take your Pls help)
- Key research gaps and issues (How your project & innovation will help bridge this gap)
- A brief overview of literature review & evaluation of similar alternatives (direct and indirect)... also mention if they are patented, design, their business models and so on
- Stakeholder Analysis
- Talking to the Stakeholders: Proposed Research design (Qualitative and Quantitative techniques to be used in the field)

- Highlight the completed part
- Mention way-forward
- Who is doing what in the project? (Technical vs. business) and highlight how much has been completed.

The final presentations will have a detailed literature review and the data analysis of all the fieldwork, various Go-to-Market Strategies adopted and a complete business model worked out for the solution.

Your project will be evaluated on the basis of originality, creative thinking, comprehensiveness of literature review, potential contributions to literature and the SOCIETY (BoP Segment), rigor in your proposed methodology and writing/presentation style and most importantly the learning gained from the course when applied to your individual project.

**Topics that shall be covered in the course:**

**(Please note a final week-wise schedule & reading material will be circulated before every class)**

<b>Session No.</b>	<b>Day and Date</b>	<b>Theme</b>	<b>Session Details</b>
0	5 <sup>th</sup> Jan. 2018 (Friday)	<b>Arti</b>	Introduction Session: Course Details
1	10 <sup>th</sup> Jan. 2018 (Wednesday)	Innovations in Business Models for BoP Markets (Some Success and Challenges) - <b>Arti</b>	Case Study: GE ECG Machine  Concepts: Reverse Innovation; Understanding Value and Mapping the Value Curve of your Innovation
2	17 <sup>th</sup> Jan. 2018 (Wednesday)	Innovations in Business Models for BoP Markets (Some Success and Challenges) - <b>Arti</b>	Case Study: Aravind Eye Care  Concepts: Go-to-Market Strategies for Rural & BoP markets; Diffusion of Innovation Models (Everett Rogers and Bass Model); Role of Communications in Diffusions of Innovation.

3	24 <sup>th</sup> Jan. 2018 (Wednesday)	Innovations in Business Models for BoP Markets (Some Success and Challenges)	Case Studies on Affordable Water Purifiers: Tata Swach and HUL Pureit by <b>Prof. Murali Sastry</b>
4	31 <sup>st</sup> Jan. 2018 (Wednesday)	Perspective on Development: Understanding the field realities	Movie. <b>Dr. Disha Bhanot will coordinate</b>
5	7 <sup>th</sup> Feb. 2018 (Wednesday)	New Product Development and Research Methods & Techniques - <b>Arti</b>	New Product Development Process and Concept Testing
6	14 <sup>th</sup> Feb. 2018 (Wednesday)	Research Methods & Techniques - <b>Arti</b>	Survey Research
7a	21 <sup>st</sup> Feb. 2018 (Wednesday)	Research Methods & Techniques - <b>Arti</b>	Experimental Designs for Social Sciences
7b	21 <sup>st</sup> Feb. 2018 (Wednesday)	Research Methods & Techniques	Field Trials by <b>Prof. Santosh Noronha</b>
	<b>1<sup>st</sup> Mar. 2018 (Thursday) and 5<sup>th</sup> March 2018 (Monday)</b>	<b>Student Presentations on their Projects</b>	<b>Topics: Stake Holder Analysis; Need Validation; Literature Review and Competition Analysis, Value Curve for your Solutions</b>
8	7 <sup>th</sup> Mar. 2018 (Wednesday)	Research Methods & Techniques	Conjoint Analysis – Concepts - <b>Arti</b> ; <b>Live Example by Prof. Sarthak Gaurav</b>
9a	14 <sup>th</sup> Mar. 2018 (Wednesday)	Social Entrepreneurship	Registering your companies in different modes by Corporate Lawyer, <b>Ms. Ami Parikh from Khaitan Legal Associates</b>
9b	16 <sup>th</sup> Mar. 2018 (Friday)	Research Methods & Techniques	Conjoint Analysis - Hands-on by <b>Ms. Vartika Srivastava</b>
10	21 <sup>st</sup> Mar. 2018 (Wednesday)	Techniques	Stakeholder analysis process mapping by <b>Ms. Huda Jaffer, SELCO Foundation</b>

11	28 <sup>th</sup> Mar. 2018 (Wednesday)	Innovations in Business Models for BoP Markets (Some Success and Challenges)	Case Study: Godrej Chotukool by <b>Mr. G Sunderraman from Godrej</b>
12	4 <sup>th</sup> Apr. 2018 (Wednesday)	Social Entrepreneurship	Economic terms for B-plan by <b>Prof. Sarthak Gaurav</b>
13a	11 <sup>th</sup> Apr. 2018 (Wednesday) -	Waste Management	<b>Mr. Richard Dias</b> Hindustan Waste Treatment Pvt. Ltd.
13b		Summary of the Course and expectations for Final PPT and report	<b>Arti</b>
14	18 <sup>th</sup> Apr. 2018 (Wednesday)	Student Discussion on their Projects	
	TBD (two dates)	Final PPTs and Report Submission	

**Apart from these topics we will have many rounds of meetings for your respective projects.**

**Reference Books for Projects:**

1. C K Prahalad, The fortune at the Bottom of the Pyramid, 2006.
2. Alan Bryman (2009), "Social Research Methods" 3<sup>rd</sup> Edition, Oxford Publications.
3. Naresh K. Malhotra, S Dash (2011), "Marketing Research An applied Orientation", 6<sup>th</sup> Edition, Pearson.
4. William G. Zikmund, et al. (2011), "Business Research Methods", 8<sup>th</sup> Edition, Cengage Learning.
5. Hair F. Joseph, Jr, William C. Black, Barry J. Babin and Rolph E. Anderson, (2010), "Multivariate Data Analysis", 7<sup>th</sup> Edition, Prentice Hall.
6. Peterson, Robert A. (2000), "Constructing Effective Questionnaires". Thousand Oaks, CA: Sage Publications.
7. Johannes Ledolter, Arthur J. Swersey (2007), "Testing 1 - 2 - 3: Experimental Design with Applications in Marketing and Services Operations". Stanford Business Books.
8. Research methods for Behavioural sciences, Frederick J Gravetter and Lori-Ann B. Forzano, Wadsworth publications.

Apart from these, all pre-readings & case studies will be emailed one week prior to the class.

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Punctuality is a virtue and I am a big fan of it. Hope you are in class, on time.

Looking forward to the sessions. Hope you all enjoy the course!