Indian Institute of Technology, Kanpur

Department of Management Sciences

Proposal for a New Course

1. Course No: **XXXXXX**
2. Course Title: **Policy Paradigm for Cutting Edge Technologies – Module 2**
3. Units: 3-0-0-0- (5)
4. Duration of Course: Modular
5. Proposing Department: DoMS
6. Other Departments: SEE
7. Proposing Instructor(s): Dr. Suvendu Naskar (DoMS), Dr. B.V.Phani (DoMS)
8. **Pre-requisite Courses: Policy Paradigm for Cutting Edge Technologies – Module 1**

Course Description:

The advent of cutting-edge technologies in various areas like, electric mobility/vehicles, artificial intelligence, new & renewable energy, 5G-6G, cyber security, advanced cell chemistries etc., with their disruptions and impact on a citizen's life, the role of scientists, researchers and policy makers becomes not only critical but also extremely difficult. This course would be providing a micro level perspective on current policy regime and exposure to various aspects of policy formulation. The disruptions caused by these technologies and the pace at which these changes take place coupled with the quick adoption of these technologies by the masses make them even more challenging. Disruptions caused by these on different parts of the eco system and how the policy is expected to handle it, what the policy ought to be and what it is, few examples will be taken up to discuss the issues in formulating a public policy. How a policy is made, handling the diversities of the country particularly arising out of the federal democratic set-up in India along with the global perspectives & implications of a policy. Stages in making a policy taking up examples from the actual policies framed by practitioners.

Expected Learning Outcomes:

At the end of this course the student is expected to be able to understand the disruptive aspects of most advanced and innovative technologies and appreciate the complexities involved in formulating policies in the areas of these technologies. How the nation/country prepares itself and copes up with their disruptive nature and faster rate of adoption and the economic and global implications of policies. How to build dynamism in policy making and how dynamic the policy regime should be. This is **second part** of two modular courses. Attending Module 1, will help student to actively engage in this course

Course Contents: (*preferably in the form of 5 to 10 broad titles)*:

Sr. No.	Broad Title	Topics	No. of Lectures
1.	Introduction-	Revision of Public Policy formulation and associated complexities	2
2.	Cutting Edge Technologies	Revision of Cutting edge technologies	2
5.	Policies for Cutting Edge Technologies	Nuances of policy formulations for new technologies in view of their disruptive aspects and their adoption. How the state/nation prepares itself and facilitates these technologies for citizen and in the overall interest of the nation considering national complexities and global implications.	4
6.	Global perspective	Global perspectives and changes of public policy driven by technology based paradigm	2
	Policy Papers Presentations	Presentation and Discussion on policy papers prepared by groups.	4

9. Remarks:
   The course is on the practical aspects of policy making, for students who intend to have insights into the issues and complexities of policy making in view of changes that take place with changing technologies. Course is expected to provide insights of how policies are made from practitioner's and policy makers perspective and where they are failing. Also, it will take up a couple of examples of existing policies and what the policies should have been from a theoretical perspective. Students will read the reference material, study how policies are evaluated, discuss in the class the outcomes and outputs achieved by those policies.

10. Textbook:
    Power & Progress, Daron Acemoglu and Simon Johnson
    Any other text books needed for this course will be specified during the class.

11. Reference Material:
    1. Outcome Budget 2019-20, 2020-21, 2022-23, 20223-24, Ministry of Finance, Government of

India

2. Policy documents: PLI Schemes, Faster Adoption and Manufacturing of Electric Vehicles, Solar Policies of State Governments, Government's Initiatives on AI Policies.
3. OECD working papers on Public governance no. 31, Emerging technologies in Public Sector
4. Hinkley, Sara. 2022. Technology in the Public Sector and the Future of Government Work. Berkeley: UC Berkeley Labor Center

Dated: 21/6/25   Proposer: **Suvendu Naskar**   Signature: _Suvendu Naskar_

Dated: 21/6/25   Proposer: **B.V.Phani**   Signature:

Dated: DPGC Convener:

The course is approved / not approved

Chairman, SUGC/SPGC

Dated: