

**CENTRE FOR TECHNOLOGY ALTERNATIVES FOR RURAL AREAS,
INDIAN INSTITUTE OF TECHNOLOGY BOMBAY**

Information about the 'Master in Development Practice' (MDP) Program

1. Background

In the recent decades, the development sector has witnessed many new ideas, models, schemes, and practices that require professional inputs from fields like technology, management, physical sciences, data sciences, and social sciences. In view of this need, many organizations—government, philanthropic, and even private—have started what are often termed as 'fellows programs'. These programs provide diverse types of support to young women and men who, soon after their education, are looking for opportunities to work in rural or urban areas serving the development sector. These programs are primarily aimed at providing to these young men and women some field exposure, experiential understanding, and work experience by working in or with either government or philanthropic organizations. Various departments and agencies of the central government as well as different state governments have started similar 'fellows' programs' of their own, such as Chief Minister's Fellows Programs (CMFPs).

Officials from foundations and other stakeholder organizations, who are associated with such fellows' programs, have been suggesting that CTARA help their volunteers/ fellows in making effective use of their fellowship experience by developing an academic program. This will help these fellows to continue serving the development sector which is in the dire need of such a professional work-force.

CTARA has been a pioneer in designing and conducting an academic program on the interface of technology and development. CTARA has been conducting the 'M.Tech. Program in Technology and Development' since the year 2007. The program has been successful in earning credibility and winning confidence of the development community as well as the student community.

In response to this need expressed by stakeholders, CTARA is now planning to offer a new, one-year 'Master in Development Practice' program. In this endeavor, it will use its resources, capabilities, expertise, and experience of designing and conducting the current M. Tech. (T&D) program. This new program will be specially designed for young men and women who have worked in the development sector.

This new master's program is tailored using the template of the one-year Master in Engineering (M. Eng.) program approved by the Senate of IIT Bombay

2. Broad Features of the Program

Program Objective

To professionally equip young development practitioners, having some field-experience, by building their academic and analytical abilities as well as professional skills that are required for becoming an effective and efficient practice-professional in the development sector.

Key Program Features

- The duration of this full-time program is about one year and will be conducted primarily in the online interactive mode with some in-person modules.
- The program is designed especially for persons who have total cumulative work-experience of at least 24 months in field-based activities the development sector.
- Apart from the course work, the program requires a student to complete an independent MDP project under the mentorship of an IIT Bombay faculty.
- The program is open for students who either are sponsored by an organization or are self-sponsored.
- IITB will not provide any financial support or hostel accommodation to students registered for the program. The students will also not be eligible for the regular placement program of IIT Bombay.
- In the initial year, the class-size could be small (about 15). It will gradually be increased to about 25 to 30 in subsequent 3 to 4 years.

Program Fees

The fees of the entire program is Rupees 3,00,000/- to be paid in two installments at the beginning of each of the two semesters.

3. Eligibility

Eligibility: Academic Criterion

At least a bachelor's degree (minimum 4-year program) in fields of engineering, technology, planning, or architecture or a 5-year master's degree in physical sciences from a university recognized by UGC.

Eligibility: Experience Criterion

CTARA will require the applicants to submit certificates of work experience of a period of total cumulative 24 (twenty-four) months in field-based activities of the development sector issued by a competent authority of a registered development organization.

The certificate should provide the details of the field-based work experience such as time-line (dates), time-duration (period), location of work, nature of work, responsibilities or projects handled, names and details of mentors or supervisors of the applicant. The gaps in the work experience, if any, will have to be accounted for by the applicant in the State of Purpose (SOP) to be submitted with the application. The experience certificates should also be accompanied by an NOC (No-Objection Certificate) if the candidate is employed. In absence of NOC, you may submit an undertaking with the application, stating that you will submit the NOC/ Resignation Letter (whatever is applicable) at the time of joining.

The organization should be formally registered under a relevant law such as Societies Registration Act, Charitable Trust Registration Act, or Companies Act. The competent authority could be the Chairperson, President, or Secretary of the organization from the development sector with whom the applicant worked. CTARA Admission Committee holds the right to contact the issuing authority of the organization and seek additional information.

The decision of the Admission Committee of CTARA regarding experience-based eligibility criteria will be final.

Selection Process

The selection and admission process will involve submission of a formal application with required documents and certificates. An application fee of Rs. 300 is to be paid when applying for this program. The selection will be based on the candidate's Application Form, Statement of Purpose (SoP), written assignments, and online interviews. The application process will begin in the second week of May 2022.

The Statement of Purpose should contain, at least, the details of the personal and educational journey, the motivation behind joining the development sector, the reflections on the previous work and experiences in the development sector, the motivation behind applying for this program, and the future plans after completion of the program.

Once the candidates are shortlisted for the online interviews, they may also be asked to do a written assignment and bring it for the interviews. Details of the assignments, if required, will be communicated along with the interview call. This program is likely to begin in the last week of July 2022, provided minimum 10 students confirm enrolment.

4. Program Structure

The program is aimed at instilling perspectives, knowledge, and skills required by a development practitioner by building on the exposure, experience, and understanding of ground-realities gained by the student through previous field work.

The program will have the following elements (or types of course):

- (i) Core Perspective Courses: Courses in this component will be aimed at providing different perspectives on the development practice.
- (ii) Core Method and Skill Courses: Courses in this component will be aimed at imparting basic understanding of methods and preliminary training in skills that are required by a development practitioner. These courses will provide training in research design and research methods, communication, analysis and data visualization, project management and evaluation, and other skills.
- (iii) Elective Courses: Courses in this component will be aimed at providing deeper knowledge and understanding of a sector or theme related to development practice.
- (iv) Research or Analytical Project Work: This component will be aimed at providing an opportunity for hands-on research and analysis of a concrete, practical problem of student's choice in a theoretically-informed and methodologically-sound manner under supervision of a faculty.

Courses and Their Semester-wise Distribution

The semester-wise distribution of courses and the number of credits for the courses (Cr.) will be as follows:

Semester 1:

1. (Core 1): Technology, Development, and Environment (Cr. 6)
2. (Core 2): Methods for Development Research (Cr. 6)
3. (Core 3): Management and Evaluation of Development Projects and Programs (Cr. 6)
4. (Core 4): Seminar: Literature Review and Proposal for MDP Project (Cr. 3)
5. (Core 5): Communication Skills for Development Practitioners (Non-Credit) (P/NP)
6. (Elective 1): Institute/ Departmental Elective (Cr. 6)

Semester 2:

1. (Core 6): Public Policy for Development Practitioners (Cr. 6)
2. (Core 7): Analytical Skills for Development Practitioners (Cr. 6)
3. (Elective 2): Institute/ Departmental Elective 2 (Cr. 6)
4. (Elective 3): Departmental Elective: Development Practicum (Cr. 3)
5. (Elective 4): Departmental Elective (Cr. 6)

Summer Semester:

6. (Project 1): MDP Project (Cr. 12) (Duration 6 Weeks, will be registered in Summer Semester)

Table 1: Component-wise Summary of Courses

Type of Course	Details	Total Cr
Core Perspective Courses	Core 1, Core 6 (2 Courses each of 6 Credits)	12
Core Method and Skills Course	Core 2, Core 3, Core 5, Core 7 [Non-Credit], (3 Course of 6 Credits plus 1 P/NP or Non-Credit course)	18 (+P/NP)
Core Seminar Course	Core 4 (Seminar) (Cr. 3)	3
Elective Courses	Elective 1 and Elective 2 each of Cr. 6 [Institute/Departmental Elective Courses], Elective 3 of Cr. 3 [Departmental Elective: Development Practicum Course]. Elective 4 of Cr. 6 [Departmental Elective: (3 courses of 6 Credits each and 1 Course of 3 Credits)]	21
(Field) Project Work	MDP Project 1 (Cr. 12)	12
	Total Credits	66

Note: * Elective 3 (Development Practicum Course) can also be termed as a Method & Skill course

Table 2: Semester-wise Breakup of Program

Semester 1		Semester 2		Summer	
Autumn		Spring			
Courses	Cr.	Courses	Cr.	Courses	Cr.
Core 1	6	Core 6	6	MDP Project	12
Core 2	6	Core 7	6		
Core 3	6	Elective 2 (Insti./Dept)	6		
Core 4	3	Elective 3 (Dep)	3		
Core 5	P/NP	Elective 4 (Dep)	6		
Elective 1 (Insti./Dept)	6				
Sem. Total	27	Sem. Total	27	Sem. Total	12

5. Brief Description of Content of Courses

1. Core 1: Technology, Development, and Environment (Cr. 6)
 - The course is primarily an introduction to the different streams in development thinking and traces the manifold ways in which the concept evolved. The course will expose the students to a diverse range of empirical cases and conceptual and theoretical frameworks which help build up a larger perspective on the technology-society-development interface.
2. Core 2: Methods for Development Research (Cr. 6)
 - This course will first introduce basic concepts of research design and methodology and introduce students to basic qualitative and quantitative methods.
3. Core 3: Management and Evaluation of Development Projects and Programs (Cr. 6)
 - This course will introduce students to preliminary theory, models, and techniques of management and evaluation of development projects and programs.
4. Core 4: Seminar: Literature Review and Proposal for MDP Project (Cr. 3)
 - This course will be aimed at helping student for: (i) developing a preliminary knowledge-base on a chosen substantive theme through a literature review in the area of project work, and (ii) developing a proposal for the MDP Project.
5. Core 5: Communication Skills for Development Practitioners (P/NP)
 - This course will be tailored on the model adopted by the similar course in the Master in Technology and Development (MTD) Program of CTARA, wherein half of the course will be taught at the institute level and the other half will be taught by CTARA faculty.
6. Core 6: Public Policy for Development Practitioners (Cr. 6)
 - The first objective of the course is to introduce theories and models of public policy making, policy implementation, performance analysis of policies, and policy evaluation.
 - The second objective is to introduce students to the ways in which public policies are practiced on the ground.
7. Core 7: Analytical Skills for Development Professionals (Cr. 6)
 - This course provides an introduction to quantitative/engineering analytical tools which are taught through case studies. The course will cover different tools (such as data mapping and visualization, Net Present Value Analysis) and use them to conduct analysis of material/engineering interventions and alternatives.
8. Elective 1: Institute/ Departmental Elective 1 (Cr. 6)
9. Elective 2: Institute/ Departmental Elective 2 (Cr. 6)

10. Elective 4: Departmental Elective (Cr. 6)

- The objective of these three courses is to provide the student an opportunity to benefit from a large number of technical and non-technical courses offered in CTARA and across the institute.
- The student may use these two slots to gain deeper understanding of her area of interest or use it for further deepening her MDP Project.
- The CTARA faculty may offer elective courses specially designed for MDP students.
- Elective 3 could be focused entirely on preparation of the project work to be conducted in Summer.

11. Elective 3: Development Practicum (Cr. 3)

- This elective course will allow students to choose from the practice-based courses offered by faculty.
- These courses will be aimed at introducing students to basic theory and preliminary techniques of the relevant tools or skills.
- The electives would include, for example, courses on GIS, Access and Processing of Large Data Bases, Big Data Processing, or Writing Skills

12. Project: MDP Project (Cr. 12)

- The MDP Project is the pinnacle of the program. Through this project, students are expected to make use of their training during the course work in this program to build on the exposure and experience they had gained before joining the program.
- The project is expected to be focused on a practically-relevant problem chosen by the student.
- It is suggested that the work on the problem chosen will have the benefit of the exposure, experience, or knowledge gained during the field work before joining the program, in order to enhance the depth and utility of the project work.
- The project is expected to be a research or analysis project that is methodologically sound and theoretically informed. The theoretical part could be covered through the literature review during the Seminar course.
- The project could be a typical research project, covering all steps: literature review (during the Seminar course), research design, primary and secondary data collection, and analysis of data.
- Alternatively, the project could involve development of a gadget or a computer program/ application, in a rigorous and systematic manner with an adequate and appropriate analytical basis.
- Any other form of output of MDP project will be acceptable, provided an expressed and prior sanction is obtained from the MDP Program Committee of CTARA.

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