



IIT Madras CODE offers
Certificate Program on

RESPONSIBLE AI-TOUR

 <https://code.iitm.ac.in/ExecEdu>

Why this course:

AI/ML systems are becoming increasingly pervasive in all facets of our lives. However, deployment of (large scale) AI systems by the industry without careful consideration of ethical, legal, privacy, societal concerns might lead to undesirable outcomes. The course is intended to educate industry personnel about the nuances of deploying AI in a responsible manner.

About the course:

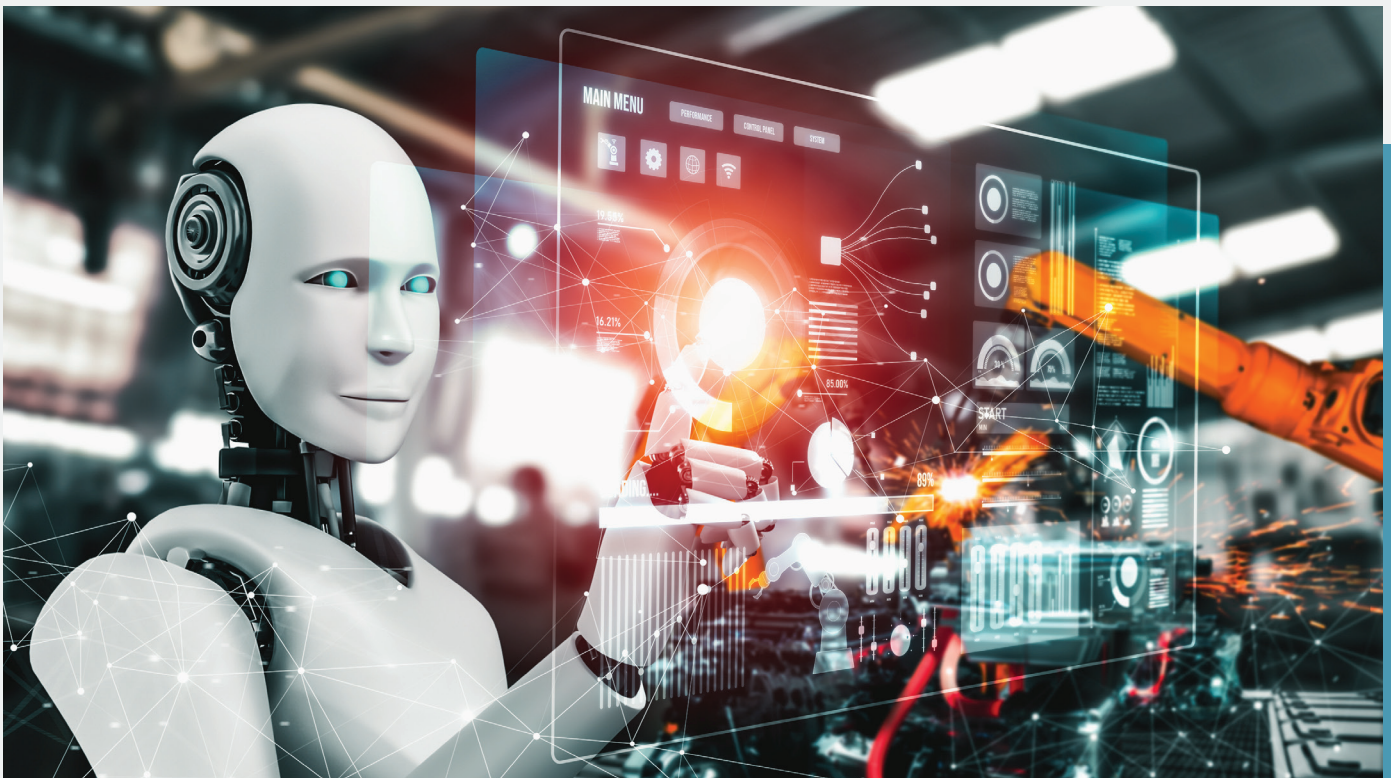
Centre for Outreach and Digital Education (CODE), IIT Madras in collaboration with Wadhvani School of Data Science and Artificial Intelligence, IIT Madras offers a short-term executive certificate programme on Responsible AI-Tour. This is a 2 week course that intends to introduce the participants to the ideas of Responsible AI. In the first week, algorithmic issues will be introduced and Principles of Responsible AI (RAI) will be discussed. In the second week, metrics and tools for RAI will be discussed in detail including the legal/regulatory framework in India and the world.

Intended audience:

The course is primarily targeted at practitioners/leaders who are involved in high level policy/decision making roles in the AI/ML industry space. A basic introductory background in Machine learning will be helpful to appreciate the nuances of Responsible AI.

Course fee: Rs.20,000 + 18% GST

[Register Here](#) >>



INSTRUCTORS



Prof. Balaraman Ravindran

Head - Wadhvani School of Data Science
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Prof. Ravi Srinivas

Adjunct Professor, NALSAR University of Law, Hyderabad
Consultant, Research and Information System (RIS),
New Delhi

CODE

About IITM CODE

Established in 1986, the Centre for Continuing Education (CCE), now renamed as Center for Outreach and Digital Education (CODE), coordinates the outreach and online programs of IIT Madras.

The centre's activities include coordinating the Web-enabled MTech programs; coordinating NPTEL and GIAN courses; coordinating IIT Madras' BS Degree programs; short-term skilling programs targeted towards Industry, Quality Improvement programs meant for faculty in engineering institutions, support for conferences, book writing, etc.

For more details, please refer : <https://code.iitm.ac.in/>



WEEK 1 MODULE

PRINCIPLES OF RAI

- Examples of AI/ML systems going wrong; problems with all ML models - bias, robustness, generalisation to OOD samples, explainability, data protection; problems with generative models - hallucination, factual correctness, prompt injection, data leakage, deep fakes, copyright infringement, etc. Examples will be drawn from various incidents.
- Principles of RAI - Transparency; Accountability; Safety, Robustness and Reliability; Privacy and Security; Fairness and non-discrimination; Human-Centred Values; Inclusive and Sustainable development.

LEARNING OUTCOMES

- Understand the principles of Responsible AI
- Appreciate the pitfalls of using AI without proper oversight/auditing mechanism

WEEK 2 MODULE

METRICS AND TOOLS FOR RAI


- Metrics and Tools for RAI - measuring bias/fairness, adversarial testing, explanations (Lime/SHAP/GradCam), audit mechanisms
- Regulation landscape - DPDP act (India), GDPR (EU), EU AI act, US presidential declaration, Ethical approvals, informed consent, participatory design, future of work


LEARNING OUTCOMES


- Understand and appreciate the commonly used RAI tools
- Understand Data Protection Laws, AI regulations, Ethical practices





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