

Artificial Intelligence and Ethics in Design

An IEEE eLearning Library Two-Part Course Program

Artificial Intelligence and Ethics in Design is a two-part, 10-course online program designed to provide practical, actionable content for those seeking to design artificial intelligence systems that meet ethical standards.

There is a growing need for artificial intelligence and ethics training, particularly as it is applied practically to design. This course program was developed to address that need. The program is intended for industry professionals focused on integrating Artificial Intelligence and Autonomous Systems within their companies or to their customers and end users.

It is also useful for academic institutions, both for those in research roles, as well as supplemental materials for research and class assignments.

Part 1 topics include:

- Responsible Innovation in the Age of AI:
- The Economic Advantage of Ethical Design for Business:
- Values by Design in the Algorithmic Era
- The Nature of Nudging
- Ensuring Data Protection and Data Safety

Part 2 “Responsible Innovation” topics include:

- From Growth to Great
- The Basis for No Bias
- Transparency and Accountability for Robots and AI Systems
- Human Emotion in Devices and Technology
- Legal and Implementation Issues of Enterprise AI

Narrated by John Havens, Executive Director of The IEEE Global Initiative for Ethical Considerations in Artificial Intelligence and Autonomous Systems (AI/AS), a consortium of over one hundred global thought leaders in the fields of artificial intelligence, law and ethics, philosophy, and policy from the realms of academia, science, and the government and corporate sectors.

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Quick Facts

Develop the skills and knowledge needed to succeed:

10-course program developed by leading Artificial Intelligence Design and Ethics industry experts and thought leaders

Courses developed and peer reviewed by experts in their fields, a process that guarantees the quality of the technical content

Printable IEEE CEU or PDH certificates awarded upon successful completion of the program through the IEEE Learning Network

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Part One Course Topics

Responsible Innovation in the Age of AI

Outlines how businesses can incorporate AI into their innovation processes through traditional philosophical models and applied ethics, which have evolved to embrace the specifics of algorithmic tracking and intelligence augmentation of AI.

The Economic Advantage of Ethical Design for Business

To get a full sense of ethical and policy impacts, it is essential to understand the larger context of AI/AS implementation to best increase societal well-being while building your business.

Values by Design in the Algorithmic Era

Presents methods for identifying, analyzing, and operationalizing moral, societal, and legal values in explicit and verifiable ways to enable inspection and stakeholder participation in AI projects.

The Nature of Nudging

“Nudging” refers to the ability of systems or robots to overtly influence human users with or without their direct consent. When used with permission, nudging can greatly improve users’ lives in various ways.

Ensuring Data Protection and Data Safety

The creation of the General Data Protection Regulation (GDPR) legislation provides an opportunity for organizations to increase ethical practices by going beyond compliance and properly aligning their products and services with end-user values.

Part Two Course Topics

From Growth to Great

Learn how ethical considerations tie into the ongoing manufacture, implementation, and policy of AI/AS, including the need for standards and certifications to guarantee transparency and accountability.

The Bias for No Bias

Because humans create the initial code upon which AI tools are built, Algorithmic Bias is unavoidable. By identifying and assessing the key considerations in how algorithms are created as well as the data sets they utilize, businesses can avoid negative unintended consequences.

Transparency and Accountability for Robots and AI Systems

Voice assistants and companion robots are growing in popularity. How these physical manifestations of AI/AS connect with users is as much of a design challenge as it is about technological interoperability.

Human Emotion in Devices and Technology

Explore the field of Affective Computing, which encompasses the nature of how human emotions respond to devices. If we are to live with robots in the near future, we must become more emotionally intelligent before trying to imbue ethical instructions in technology.

Legal and Implementation Issues of Enterprise AI

Self-driving cars and drones are already part of society. What are the pressing legal questions for companies today and in the future? Learn about the top issues of compliance, risk, and opportunity of AI/AS.

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