

# Elements of AI

## Massive Open Online Course

### Program and Calendar

<p>Opening session <b>15/02/2023</b></p> <p><a href="#">REGISTRATION &gt;</a></p>	<p><b>ORGANIZER'S INTRODUCTIONS</b> Dr. Sana NOUZRI and Dr. Salima LAMSIYAH and Dr. Jihad ZAHIR</p> <ul style="list-style-type: none"><li>▪ Complementary course overview presentation</li><li>▪ Program and schedule</li><li>▪ Slack demonstration</li><li>▪ Q&amp;A</li></ul>
<p>Session 1 <b>22/02/2023</b></p> <p><a href="#">REGISTRATION &gt;</a></p>	<p><b>CHAPTER 1: WHAT IS AI?</b> Dr. Salima LAMSIYAH</p> <p>➤ Complementary talk on "<b>Our present and future with Intelligent systems</b>" to discuss the following:</p> <ul style="list-style-type: none"><li>▪ What are AI and autonomous systems?</li><li>▪ Some examples of AI and autonomous systems: self-driving, flying drone, and autonomous ship</li><li>▪ What are the trends, opportunities, and constraints in AI and autonomous systems?</li><li>▪ Future of AI and its impact on our lives.</li><li>▪ Applications of AI in different domains such as healthcare, finance, retail, etc.</li><li>▪ How to make sure AI is ethically sound?</li><li>▪ What challenges need to be addressed for wider adoption of AI?</li><li>▪ What are some of the issues and challenges with AI development?</li></ul>
<p>Session 2 <b>01/03/2023</b></p> <p><a href="#">REGISTRATION &gt;</a></p>	<p><b>CHAPTER 2: AI PROBLEM SOLVING</b> Prof. Christoph SCHOMMER</p> <p>➤ Complementary talk on "<b>AI &amp; Art application</b>" to discuss the following:</p> <ul style="list-style-type: none"><li>▪ How can AI be used in art?</li><li>▪ What are some examples of AI in art?</li><li>▪ How AI can be used to improve problem solving in the arts.</li><li>▪ What are the benefits and challenges of using AI in the arts?</li><li>▪ How can AI enhance or change the art experience?</li><li>▪ What is the future of AI in art?</li><li>▪ What are some ethical considerations of using AI in art?</li><li>▪ What are some potential dangers of using AI in art?</li></ul>
<p>Session 3 <b>08/03/2023</b></p> <p><a href="#">REGISTRATION &gt;</a></p>	<p><b>CHAPTER 3: REAL WORLD AI (PROBABILITY-ODDS)</b> Dr. Salima LAMSIYAH</p> <p>➤ Complementary talk on "<b>Natural language processing</b>" to discuss the following:</p> <ul style="list-style-type: none"><li>▪ What are some applications of natural language processing?</li><li>▪ A case study of how a smart speaker uses natural language processing.</li><li>▪ What is a recent development in the field of natural language processing?</li></ul>

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	<ul style="list-style-type: none"><li>▪ What challenges does natural language processing face?</li><li>▪ What are some research directions in natural language processing?</li><li>▪ What are some ethical considerations in natural language processing?</li><li>▪ What is the future of natural language processing?</li><li>▪ How can I get started in natural language processing?</li><li>▪ A brief demo of GPT 3 (Generative Pre-trained Transformer 3)?</li></ul>
<p>Session 4 15/03/2023</p> <p>REGISTRATION &gt;</p>	<p><b>CHAPTER 4: MACHINE LEARNING</b> Dr. Bereket YILMA</p> <p>➤ Complementary talk on “<b>Recommended system application</b>” to discuss the following:</p> <ul style="list-style-type: none"><li>▪ what are the real word scenario examples of recommended system?</li><li>▪ What is the rationale for using the recommended system?</li><li>▪ How to apply the proposed system to solve a problem in a real-world scenario.</li><li>▪ What are the advantages and the limitations/risks associated with implementing the proposed system?</li><li>▪ What are the open research questions that need to be addressed in future work on the proposed system?</li><li>▪ What are the ethical considerations that need to be taken into account when implementing the proposed system?</li></ul>
<p>Session 5 22/03/2023</p> <p>REGISTRATION &gt;</p>	<p><b>CHAPTER 5: NEURAL NETWORKS</b> Dr. Davide LIGA</p> <p>➤ Complementary talk on “<b>Technical explanation of different types of Neural networks (NN) and their examples</b>” to discuss the following:</p> <ul style="list-style-type: none"><li>▪ Machine Learning vs Deep learning</li><li>▪ How do neural networks work?</li><li>▪ What are the different types of neural networks?</li><li>▪ What are the applications of different types of neural networks?</li><li>▪ What are the benefits of using neural networks?</li><li>▪ Are there any disadvantages to using neural networks?</li></ul>

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<p><b>Session 6</b> <b>29/03/2023</b></p> <p><b>REGISTRATION &gt;</b></p>	<p><b>CHAPTER 6: AI IMPLICATIONS</b> Dr. Jihad ZAHIR</p> <ul style="list-style-type: none"><li>➤ Complementary talk on “<b>AI reflections</b>” to discuss the following:<ul style="list-style-type: none"><li>▪ How to build AI project from Data to decision</li><li>▪ Workflow of ML project,</li><li>▪ AI &amp; society,</li><li>▪ AI &amp; Ethics,</li><li>▪ AI &amp; Explainability</li><li>▪ AI &amp; Bias</li><li>▪ Future of AI</li></ul></li></ul>
<p><b>Final test</b> <b>19/04/2023</b></p>	<ul style="list-style-type: none"><li>➤ Multiple choice question test to evaluate the understanding and involvement of participants, by doing the test, every participant should be able to:<ol style="list-style-type: none"><li>1. identify the basic concepts of AI</li><li>2. select the best AI technique for a given problem</li><li>3. understand the use and limitations of AI</li><li>4. Identify some of the major societal implications of AI</li></ol></li></ul>