**Course Content Outline:**

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| ***Day 1 Session 1 - Artificial Intelligence***IntroductionHistory, State of the Art and FutureAI Tasks: Problem solving, search, Knowledge and Reasoning, Decision Making, Learning, Perception and Communication | ***Day 2 Session 1 - Machine Learning***Techniques: Dimensionality ReductionClusteringClassification, RegressionSoftware Tools & Programs usedR, Python, Hadoop, SQL, SAS | ***Day 3 Session 1 - AI in Robotics***Robotic HardwareRobot PerceptionsUncertain Movement PlanningRobotic Software ArchitecturesApplication Domains |
| ***Day 1 Session 2 - Artificial Intelligence***Applications* Robotics
* Natural Language Processing
* Autonomous Vehicles
* Computer Vision
 | ***Day 2 Session 2 - Deep Learning***Overview & definitionsNeural NetworksSome Applications Areas | ***Day 3 Session 2 - Artificial Intelligence***Economic Impact of AIFunctional Areas where AI is Mostly UsedTrust Factor in AI |
| ***Day 1 Session 3 - Machine Learning***IntroductionHistory, State of the Art and FutureMachine Learning AlgorithmsSupervised LearningUnsupervised LearningReinforcement Learning | ***Day 2 Session 3 - Deep Learning***Hyperparameter TuningRegularizationOptimisationUse Case - Machine Learning / Deep Learning | ***Day 3 Session 3 - AI Project***Project BackgroundProject DetailsProject ObjectiveProject Work by Participants |
| ***Day 1 Session 4 - Artificial Intelligence***AI Use Case  | ***Day 2 Session 4 -*** Quiz | ***Day 3 Session 4 - Artificial Intelligence***Brief Project Presentation by Participants - Interactive Review & FeedbackSumming Up |