MACHINE LEARNING FOUNDATIONS and APPLICATIONS

(AI42001)

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CENTRE OF EXCELLENCE IN ARTIFICIAL INTELLIGENCE

IIT KHARAGPUR

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Mode of Teaching

- MS Teams for class (AI42001 MLFA Autumn 2021)
- Code: **oxgsum6**
- All important announcements through email and posted in Team
- All lectures will be held online on this Team
- Lecture timings: 11:00-11:55 AM (Monday), 8:00-9:55 AM (Tuesday)
- Lecture recordings and slides will be shared on the Team
- Lab session timings 2:00 PM onwards (Wednesday) on MS Teams
- Lab assignments to be submitted through Moodle

Interactions

- Theoretical and logistics-related doubts:
  - please feel free to ask doubts during the lecture
  - can mail the instructors or ask through Teams chat
- Lab assignment-related doubts:
  - to be asked to TAs during lab hours
  - can mail or ask through Teams chat to TAs
  - serious doubts may be asked to instructors through mail or Team chat

Evaluation

- 3 tests – 3 x 20 = 60 [2nd week of September, 1st week of October, mid-November]
- Test modality to be declared later
- 4 lab assignments – 4 x 10 = 40
- (3 weeks of time will be given per assignment, to be submitted in Moodle by groups of 5-6 students)
- 1 theoretical assignment for those who have missed tests
- 4 quizzes on MS Teams (unevaluated, but may be used for students who may have missed tests)
- Grading: absolute + relative (no fixed number of EXs, As etc, cutoff to be decided based on overall performance of class)

Study Materials

- No book will be followed
- Materials will be shared, but students are encouraged to explore the internet for different topics
- Reference books:

  1) Pattern Recognition for Machine Learning by Chris. M. Bishop

  2) Machine Learning by T. Mitchell

  3) Pattern Classification by Duda, Hart, Stork

  4) Deep Learning by Ian S. Goodfellow, Y. Bengio and A. Courville

  5) Machine Learning: a probabilistic perspective by Kevin Murphy

  6) (LAB) Introduction to Machine Learning with Python: A Guide for Data Scientists by A. C. Muller and S. Guido