Special Topics in Mechano-Informatics II

Wednesday 14:55-16:40

Room: Online zoom lecture (Faculty of Engineering Bldg.2 Room（#233）)

- Course Objectives/Overview

The goal of this course is to provide advanced topics in the field of Machine Learning, Artificial Intelligence and Big Data. All lectures are members of RIKEN Center for Advanced Intelligence Project (AIP).

- Keywords

Machine Learning, Artificial Intelligence, Big Data

- Teaching Methods

Classroom lecture

- Method of Evaluation

Homeworks

Class Participation

- Schedule

4/8, Masashi Sugiyama, Overview of AI Research and Introduction of RIKEN-AIP

4/15, Yasuo Tabei, Succinct Data structure for Scalable Knowledge Discoveries

4/22, Minh Ha Quang, Geometrical Methods in Machine Learning and Applications (1)

5/7, Minh Ha Quang, Geometrical Methods in Machine Learning and Applications (2)

5/13, Pierre Alquier, Introduction to Variational Bayes

5/20, Pierre Alquier, Basics of Online Optimization

5/27, Kentaro Inui, Natural Language Understanding

6/3, Lin Gu, Artificial Intelligence in Medicine

6/10, Tomasz Rutkowski, AI and human brain: Brain-computer Interface (BCI) Applications

6/17, Tomasz Rutkowski, AI for Time-series: Healthcare, Multimedia VR/AR, and FinTech Applications

6/24, Tatsuya Harada, Image and Video Recognition Using Machine Learning

7/1, Qibin Zhao, Tensor Factorization and Tensor Networks (1): Basic Model and Algorithm

7/8, Qibin Zhao, Tensor Factorization and Tensor Networks (2): Applications to Signal Processing and Machine Learning

- Required Textbook

non

- Reference Books

機械学習プロフェッショナルシリーズ，講談社

- Course-Related Websites

http://www.riken.jp/en/research/labs/aip/

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