Course 2: Omnibus Lecture Series in STEM

Title: AI and Business Analytics

Professor: Kim, Jong Woo (College of Business)

Educational Background

- Ph.D. (Industrial Management), Korea Advanced Science and Technology, South Korea
- M.S. (Management Science), Korea Advanced Science and Technology, South Korea
- B.S. (Mathematics), Seoul National University, South Korea

Research Areas

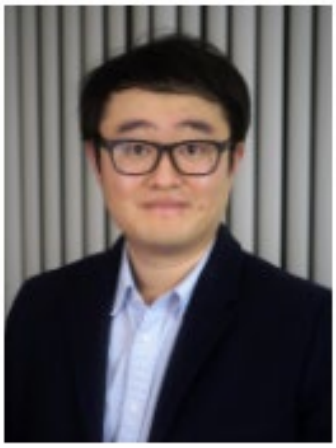
Intelligent Information Systems, AI and Machine Learning Application for Business, Data Mining, Business Analytics, Text Mining, Recommendation Techniques, Social Network Analysis

Course Description

Understanding of Artificial Intelligence, Machine Learning, and Deep Learning
Understanding of Business Analytics and Big Data
AI and Big Data Applications

Title: Materials Science and Engineering

Professor: Oh, Nuri (College of Engineering)



Educational Background

- Ph.D. (Materials Science and Engineering), University of Illinois at Urbana-Champaign, USA
- M.S. (Materials Science and Engineering), Hanyang University, South Korea
- B.A. (Materials Science and Engineering), Hanyang University, South Korea

Research Areas

Quantum Dots

Laboratory

Website: https://sites.google.com/view/oh-research-group/

Course Description

The course, Materials Science and Engineering, focuses on the fundamentals of materials with the relationships between the structures and properties of materials.
Topics include:
1) interatomic bonding of materials,
2) crystal structures,
3) defects in materials,
4) phase diagrams of materials, and
5) mechanical, thermal, electrical and optical properties of materials

Title: Automotive Engineering: From model Ts to model 3s

Professor: Yoo, Jihyung (Department of Automotive Engineering)

Educational Background

- Ph.D. (Mechanical Engineering), Stanford University, USA
- M.S. (Mechanical Engineering), Stanford University, USA
- B.S. (Mechanical Engineering), Hanyang University, South Korea

Research Areas

Automotive Engineering

Course Description

The lecture will cover the past, present, and future of automotive engineering from its inception to upcoming innovations. It will be presented from the perspective of four key ideas currently dominating the automotive engineering discipline: electrification, autonomous, connectivity, and mobility. Topics such as electric vehicles, self driving cars, informatics, and transportation derived services. The talk will be accessible to a general audience with an interest in science, technology, engineering, and math.

Title: Creative Problem Solving: Introduction

Professor: Jang, Euee Seon (College of Engineering)

Educational Background

- Ph.D. (Electrical and Computer Engineering), State University of New York at Buffalo, USA
- MSEE (Electrical and Computer Engineering), State University of New York at Buffalo, USA
- B.S. (Computer Engineering), Jeonbuk National University, South Korea

Research Areas

Media Compression, Media Standardization

Course Description

This lecture provides a general introduction to problem solving. This lecture is for those who would to know a general principle in problem solving from the definition.

Title: Introduction to AI and Application

Professor: Won, Youngjoon (College of Engineering)

Educational Background

- Ph.D. (Computer Science and Engineering), POSTECH, South Korea
- B.S. (Math, Computer Science), University of Waterloo, USA

Research Areas

Internet Measurement and AI

Career

Worked at INRIA. France and IIJ Research, Japan
Website: http://young.hanyang.ac.kr

Course Description

This lecture introduces the fundamental problems of artificial intelligence and recent trend of AI applications, deep-learning.