10810IPHD700100 iPhD Seminar (書報討論)

Instructor: Chair Professor Chen-Fu Chien, Ph.D. (簡禎富講座教授) TA: Chun-Yao Wang (王俊堯)

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Office: Engineering Building I, R922 Time: W6W7 (Wednesday 14:20 ~ 16:20)

Secretary: Ms. Joanne Lu (盧映宇)/dalab@ie.nthu.edu.tw Classroom: GEN II(綜二) 205

Course Description

This course aims to broaden the Ph.D. students' horizon in different areas. This course starts with a warm-up session to introduce the concept of manufacturing intelligence and decision analysis. This course will also invite speakers to share their cutting-edge research and experiences. The participating students are required to review and present the up-to-date literature by themselves. In the end of the semester, a term paper and the oral presentation, will be required to summarize what they have learned through the semester.

| Week | Date | Speaker | Topic | Field | Affiliation | |
|------|-------|------------------------------------------------------|------------------------------------------|---------------------------------|-------------------------|--|
| 1 | 9/11 | iPhD. Program Orientation | | | | |
| 2 | 9/18 | Academician Burn- | My Philosophy of Life | Immersion lithography, | Academician of | |
| | | Jeng Lin, | | Semiconductor | Academia Sinica, SVP of | |
| | | (林本堅院士) | | manufacturing | R&D of TSMC | |
| 3 | 9/25 | Industry3.5 symposium/ Chair Professor Chen-Fu Chien | | | | |
| 4 | 10/2 | Academician/ Prof. | Circular Economy meets Industry3.5 | Circular Economy, | De La Salle University | |
| | | Antony SF Chiu | | Sustainability, Industrial | | |
| | | (周純峰教授) | | Ecology | | |
| 5 | 10/9 | Prof. Ling-Fan Li | Commercial interest rates and | Ecomomics History, Money | Department of | |
| | | (李翎帆教授) | geography of international credit in the | and Banking, Cliometrics | Economics, NTHU | |
| | | | seventeenth century | | | |
| 6 | 10/16 | Prof. Po-Yu Chen | Next generation materials inspired from | Bio-inspired Materials | Department of Materials | |

| | | (陳柏宇教授) | Nature and optimized by AI | | Science and Engineering, NTHU | | |
|----|-------|-------------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--|--|
| 7 | 10/23 | Prof. Marzieh Khakifirooz | Capula Clustering for Machine Subgroup Identification | Big Data Analysis, Smart Manufacturing, Optimization Algorithm, Reliability Statistics | Industrial Engineering, Tecnológico de Monterrey | | |
| 8 | 10/30 | Prof. Wong Chan- Yuan (王振源教授) | Mapping the structure of innovation: competency, industrial network and technology landscape | Research Evaluation, Evolutionary Economics, Science and Technology Policy and Management | Institute of Technology Management, NTHU | | |
| 9 | 11/6 | Prof. Tan Kui Thong (陳貴通教授) | TBD | Organic Chemistry, Analytical Chemistry, Chemical Biology | Department of Chemistry, NTHU | | |
| 10 | 11/13 | NTHU Sport Day (全校運動會) - DAY OFF | | | | | |
| 11 | 11/20 | YW. Peter Hong (洪樂文教授) | TBD | Physical Layer Secrecy, Cooperative Communications, Distributed Signal Processing for Sensor Networks | Department of Electrical Engineering, NTHU | | |
| 12 | 11/27 | Yunching (Becky) Chen (陳韻晶教授) | Application of nanotechnology in cancer therapy | Drug deliveryCancer, BiologyPharmaceutics, Gene Therapy | Institute of Biomedical Engineering, NTHU | | |
| 13 | 12/4 | Prof. Yuan-Chi Tseng (曾元琦教授) | Design Behavior by Digital Platform: From Behavior Theory to Design | Human-Computer (/Robot/AI) Interaction, Design Science and Method, Psychology+Design, User | Institute of Service Science, NTHU | | |

| | | | | Experience & Service Design, | | |
|----|-------|--------------------------------------------------|--------------------------------------|-----------------------------------------|-------------------------------|--|
| | | | | Intelligent Interactive and | | |
| | | | | Service System | | |
| 14 | 12/11 | Prof. Chien-Heng Wu | The Posthuman and Its Vicissitudes | Comparative Literature, | Department of Foreign | |
| | | (吳建亨教授) | | Literary Theory, | Languages and | |
| | | | | Contemporary Continental | Literature, NTHU | |
| | | | | Philosophy | | |
| 15 | 12/18 | Prof. De-Hao Tsai | Hybrid nano-catalysts for energy and | Material haracterization, | Department of Chemical | |
| | | (蔡德豪教授) | environmental applications | Nanomaterials, | Engineering, NTHU | |
| | | | | Nanomaterials Synthesis | | |
| 16 | 12/25 | Merry Christmas/ Take-home report (due 2020/1/8) | | | | |
| 17 | 1/1 | Happy New Year - DAY OFF | | | | |
| 18 | 1/8 | Professor Ching-Ting | Approaches to Educational Equity | Early Childhood Education | Department of Early | |
| | | Hsin | for Young Indigenous Children in | | Childhood Education, | |
| | | (辛靜婷教授) | Taiwan: From Literacy to STEM | | NTHU | |
| | | | Curricula | | | |

Evaluation Criteria

Attendance 50%

Q&A and Report 50%

Extra performance extra 10%

Regulation

- 1. Please sign the attendance sheet before the talk starts (14:20) and will not be allowed to come in late to avoid class disturbance.
- 2. Please apply for absence in advance should you cannot attend the seminars, yet maximum twice is allowed with good reasons, otherwise will deduct 5 points.
- 3. Please ask questions in at least 5 of 14 seminars and send a report to TA about your question, response of the speaker, and your comments.