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Research Methodology and Statistic
:00 Course description

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Lectures

- Assoc.Prof.Dr. Ponrudee Netisopakul
- Research areas
  - Natural Language Processing
  - Knowledge Engineering
  - Software Engineering
  - Artificial Intelligence

- Asst.Prof.Dr. Supakit Nootyaskool
- Research areas
  - Evolutionary computation
  - Recognition system
  - Classification system
  - Prediction system

Objectives

- To recognize meaning of the research.
- To contribute students having the right way to make a research.
- To show how to analysis and propose the experiment result.
- To encourage students doing the research until completely with a paper.

Course description

ชื่อวิชาภาษาไทย: ระเบียบวิธีวิจัยและสถิติ

ชื่อวิชาภาษาอังกฤษ: RESEARCH METHODOLOGY AND STATISTICS

Prerequisite: ไม่มี

หน่วยกิต (บรรยาย-ปฏิบัติ): 3 (3-0-6)

ระเบียบวิธีวิจัย ประเภทงานวิจัย การวิเคราะห์ปัญหา การกำหนดหัวข้องานวิจัย การออกแบบการวิจัย การเก็บรวบรวมข้อมูล การนำเสนอข้อมูล การวิเคราะห์ข้อมูล การแปลผลข้อมูล รวมถึงเทคนิคต่างๆ ทางสถิติที่เกี่ยวข้องกับการวิจัยทางด้านเทคโนโลยีสารสนเทศ

Research methodology, type of research, defining the problem, identifying research topics, research design, data collection, data presentation, data analyzing, data interpretation, statistical techniques for research in information technology.

Schedule

Week	Date	Topics
1		1. What is research - Research process
2		2. Formulating a research problem - Literature review - Collecting knowledge from literature reviews - Analysis and synthesis a problem form literature reviews
3		3. Determination research problem - Consideration selecting a research problem - specifying source of research problem - Relating variable in research problem - Writing hypothesis of research

Schedule

Week	Date	Topics
4		Class activity 1: Student present to your interesting a research problem (15%)
5		4. Conceptual research design - Research design - Selecting a study design
6		5. Data collecting and analysis - Selecting a method of data collection - Collecting data using attitudinal scales - Validation and reliability of research data
7		6. Selecting sample data - type of sampling collection data - Accuracy and precision

Schedule

Week	Date	Topics
8		Midterm examination (25%)
9		7. Writing research proposal
10		Class activity2: Student propose/present your research proposal (15%)
11		8. Ethical and immorality of researching - Immorality of data collection - Plagiarism - Self-plagiarism
12		9. Data processing - Processing raw of research data - Display result of research data

Schedule

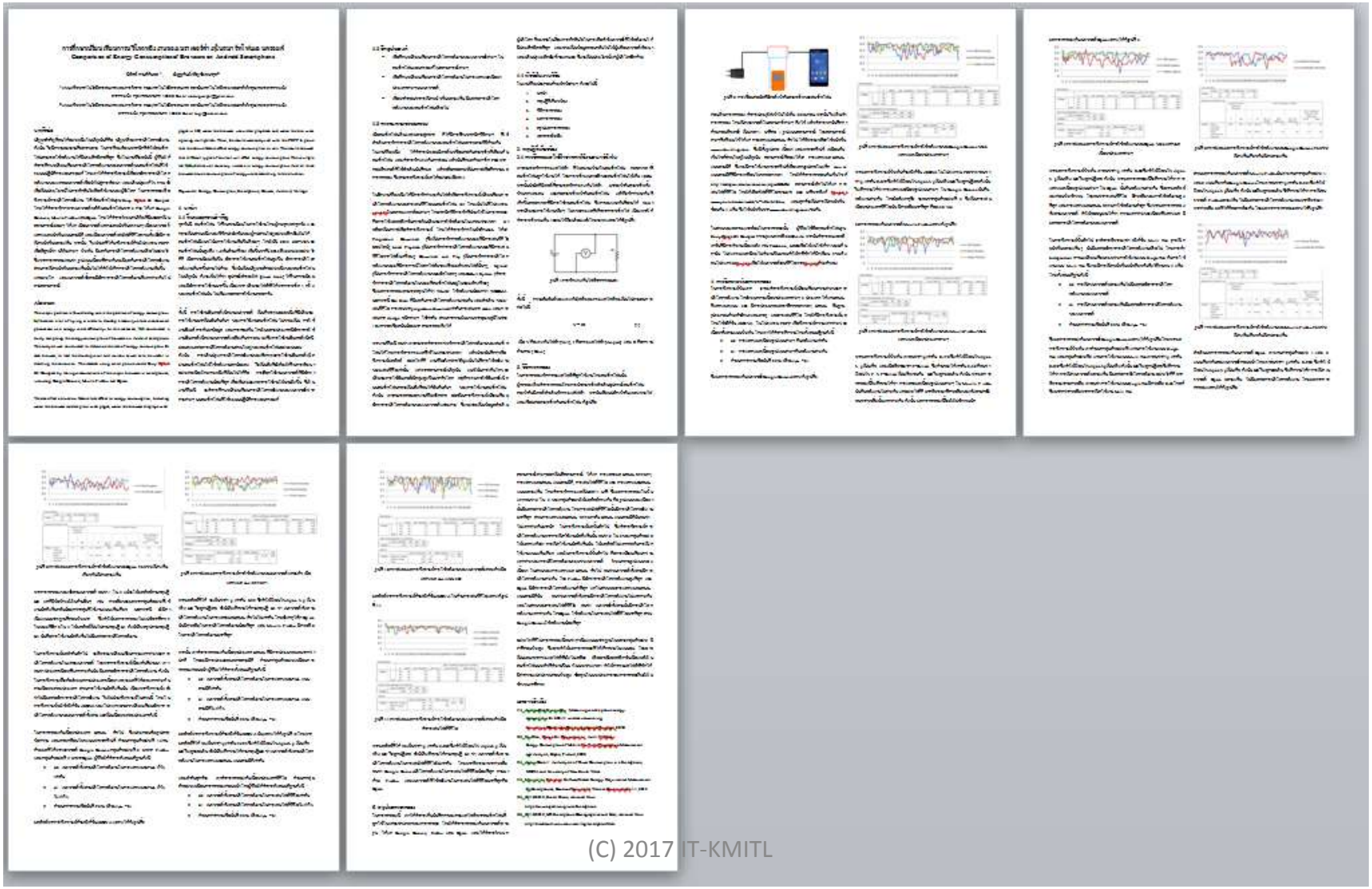
Week	Date	Topics
13		10. Writing a research report - Research report public in conference - Writing a independence-study report - Writing a thesis
14		11. Review and criticism another research
15		Class activity 3: Student present the result of your research (20%)
16		Class activity 3 (Continuous)
17		Final examination (25%)

Course evaluation/Criteria

- Class work
  - Activity 1 — What is your research problem — 15%
  - Activity 2 — Make proposal doc/present — 15%
  - Activity 3 — Research result — 20%

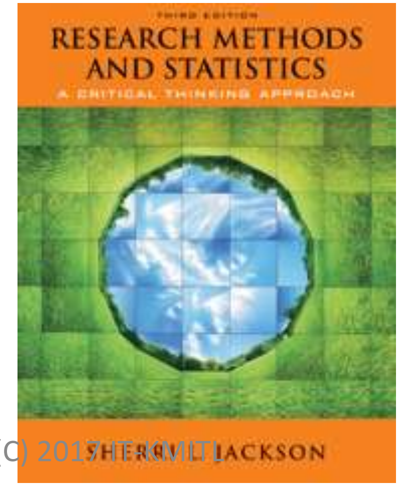
- Midterm examination — 25%
- Final examination — 25%

What will you get after studying this course?



Books and References

- Ranjit Kumar, "Research Methodology: A step by step guide beginners", Pearson Education, 2005, p352
- Hamdy A. Taha, "Operations Research An introduction 8th ", Pearson prentice hall, 2007, p813



Study Tools

- A Laptop computer for running Scilab and PSPP.
- For doing the research
  - Camera
  - Audio recorder
  - Data collector devices

Contact me

- Problem consult: Tue 13-16 Room 510-8
  Sun 13-16 Room 510-8

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- Download slide and document :
  http://161.246.38.75