ME 301 Mechanical Engineering Laboratory 1 (TEPE)

Teaching schedule

Week 1st	**Engineering measurement and data analysis** (with a test after the lecture 10%)	Dr.-Ing. Thira Jearsiripongkul
Week 2nd	**Sensors and data acquisition** (with a test after the lecture 10%)	Dr.-Ing. Thira Jearsiripongkul

Week 3 — 10: with the following experiments

Solids and material science:

1. Tensile Testing (1st floor at new building) — Dr. Chaosuan Kanchanomai

2. Measurements Using Strain Gauge (ME shop) — Ajarn Kata Vatakij

Heat and energy:

3. Temperature and Humidity Measurement (ME shop) — Dr.-Ing. Thira Jearsiripongkul

4. Application of Thermoelectric (ME shop) — Dr.-Ing. ThiraJearsiripongkul

Fluids:

5. Various Types of Air Flow Measurement Devices (3rd floor at new building) — Dr. Wiroj Limtrakarn

6. Characteristic curve of Pump (ME shop) — Dr.-Ing. Thira Jearsiripongkul

Dynamics and control:

7. Application of the accelerometer (Room 613, Main building) — Dr.-Ing. Thira Jearsiripongkul

8. Application of the potentiometer (Room 613, Main building) — Dr.-Ing. Thira Jearsiripongkul

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Assessment:

Engineering measurement and data analysis	10%
Sensors and data acquisition	10%
Laboratory (Attendance, time and attention)	20%
Short report (Theory, results and short conclusions)	10%
Full report	50%

Schedule	Date	Instructor	Place
Introduction	22/06/06	Thira	ME shop
Engineering Measurement	29/06/06	Thira	Main building
Sensors and Data Acquisition	06/07/06	Thira	Main building
Strain Gauge	13/07/06	Kata	ME shop
Characteristic Curve of Pump	20/07/06	Thira	ME shop
Various Types of Air Flow Measurement Devices	27/07/06	Wiroj	3rd floor at main building
Application of the Potentiometer	24/08/06	Thira	Room 613, Main building
Tensile Test	31/08/06	Chaosuan	1st floor at main building
Temperature and Humidity Measurement	07/09/06	Thira	ME shop
Application of Thermoelectric	14/09/06	Thira	ME shop
Application of the Accelerometer	21/09/06	Thira	Room 613, Main building

Short report: Objective, Short Experimental procedures, Results and Short analysis.

Full report: Objective, Short theory, Full Experimental procedures, Results, Analysis and Conclusions

Submission: Every Wednesday (before 12:00 at TEP/TEPE Office)