

School of Information Technology
Mae Fah Luang University

Program: Bachelor program in Computer Engineering Academic Year: 2022 – 2023??

Year: 2nd year Semester: 2 Credit: 3 (2 Hours Lab 2 Hours per week) 60 hours in total

Course code: ...1501221..... Course Title: Embedded System and Internet of Things...

Number of students:.....

By signing this document, I confirm that I'm a regular student registered in this course, and I have completed the lesson of this course in the academic year.

Attendance List

Instructor: NameSurname

Student ID	Name – Surname	Signature
6431501081	Patcharaphon Ladkheew	Patcharaphon
6431501022	Sunship Denys	Sunshike
6431501016	Chanathip Chaicharoen	Chanathip
6431501040	Tanapat Boonmesuwan	Tanapat
6431501017	Chomphunut Phontai	Chomphunut
6431501056	Nitid Lauhasuwannarat	Nitid
6431501054	Nathan Boonkan	Nathan
6431501102	Worawut Khunnoi	Worawut
6431501049	Nathikan Chanwaing	Nathikan
6431501059	Buachompoo Yutthatepa	Buachompoo
6431501032	Nattawat Seayoo	Nattawat
6431501013	Junrapong Borin	Junrapong
6431501112	Wisaruta Uengtrakun	Wisaruta
6431501139	Patipon Anawan	Patipon
6431501104	Waraphorn Huangsaboot	Waraphorn
6431501132	Natthawut Sinnamkham	Natthawut
6431501117	Suphanat Wiramitsrichai	Suphanat
6431501097	Rawitsara Ounwiang	Rawitsara
6431501080	Phatcharapong sungpanta	Phatcharapong
6431501135	Tiptawan Kansuwan	Tiptawan
6431501118	Suphapol Wongsawat	Suphapol

Instructor:Date.....Signature

Number of students:.....

By signing this document, I confirm that I'm a regular student registered in this course, and I have completed the lesson of this course in the academic year.

Attendance List

Instructor: NameSurname

Student ID	Name – Surname	Signature
6431501119	Sertthapong Kongman	Sertthapong
6431501116	Supakorn Sangam	Supakorn
6431501012	Chirarat Poonpuang	Chirarat
6431501141	Paratea Patcharareevarat	Paratee
6431501089	Ponchanols Fongjaivan	Ponchanols
6431501172	Ponchanols Fongjaiyan	Pong
6431501171	Paing Phyo Su	Paing
6431501077	May Hlet Hlet Khine	Pannisa
6431501173	Phyo Thura	Phyo
6431501174	Salai David Poi Hlan	Salai
6431501064	Panawat Chankhiao	Panawat
6431501048	Nakared Tumthong	Nakared
6431501111	Viripon Thepthongpoon	Viripon
6431501042	Thanawat Sanosiang	Thanawat
6431501044	Thanamwan Khwanthongyen	Thanamwan
6431501043	Thanawit Senajumnong	Thanawit
6431501028	Natdanai Jirapatanapong	Natdanai
6431501078	Pornsawan Lamsan	Pornsawan
6431501063	Porramet Chantaphin	Porramet
6431501033	Natthawat Aupawong	Natthawat
6431501006	Kankavee Tharasook	Kankavee
6431501039	Thanapol Nonthabut	Thanapol
6431501051	Noppadol deeloun	Noppadol
6431501024	Yarida Fuangfoo	Yarida
6431501075	Pornnapha Naphirot	Pornnapha
6431501020	Chuliporn Tettarat	Chuliporn
6431501045	Thammarak Thongwong	Thammarak
6431501005	Kasidit Chaikunrat	Kasidit
6431501076	Pornpiphat Phathanakit	Pornpiphat

Instructor:Date.....Signature

Number of students:.....

By signing this document, I confirm that I'm a regular student registered in this course, and I have completed the lesson of this course in the academic year.

Attendance List

Instructor: NameSurname

Student ID	Name – Surname	Signature
6431501108	Wanchai Walingta	ว้างว้าง
6431501041	Thanawat Leekliang	Thanawat
6431501070	Piyarak Techprasertkul	Piyarak
6431501082	Patcharawit Kerdsuk	Patcharawit
6431501112	Siraphob Phattaart	ศิริพอบ
6431501105	Watcharapol Suphasri	Watcharapol
6431501072	Piemhathai Prasert	เปี่ยมหทัย
6431501114	Weerapat Chaifong	วีระพาท
6431501071	Piyawat Pantha	ปิยวาท
6431501066	Pranita Sawaengha	Pranita
6431501085	Peeranut Phitakham	Peeranut
6431501126	Anon Klaiklaung	Anon
6431501100	Wachirarat Pukanad	Wachirarat
6431501124	Oraphan Poolrak	Oraphan
6431501096	Muhammasree Jaisiltham	Muhammasree
6431501018	Chonthicha Prasombun	Chonthicha
6431501008	Kantima sanyaporn	Kantima
6431501002	Kamonluk Majeam	Kamonluk
6431501057	Nipapohn Tumwong	Nipapohn
6431501034	Nichakamon Kiddee	Nichakamon
6431501030	Natchapat Netdee	Natchapat
6431501159	Nontawat Thongkam	Nontawat
641501052	Napatsawan Ngaongam	Napatsawan
6431501014	Jenjira Jittayasothon	Jenjira
6431501084	Priyakorn Chonpattanapaisan	Priyakorn
6431501083	Patcharaporn Samas	Patcharaporn
6431501110	Viramon Kongthong	วิระมอน
6431501091	Pavinee Seehapanya	ปวีณี
6431501166	Siriwat Numnuea	ศิริวาท
6431501140	Panchaya Rueangsri	ปานชยา
6431501095	Manlika Chaiwong	มานลิกา
6431501150	Sorawit Sritichai	สุรวิต
6431501	Kritchanat Nitiparityanuwat	กฤษณา

Instructor:Date.....Signature

Number of students:.....

By signing this document, I confirm that I'm a regular student registered in this course, and I have completed the lesson of this course in the academic year.

Attendance List

Instructor: NameSurname

Student ID	Name – Surname	Signature
6431501067	Pawanrat Trikanchob	ปวีณรัตน์
6431501107	Watcharin Sopanri	วชรัตน์
6431501053	Napatsron Namsue	นพรัตน์
6431501149	Saranyathron Onbannasin	สรณรัตน์
6431501029	Nattiga Tumthong	นตติกา
6431501152	Sunisa Jansai	สุนิสา
6431501051	Noppadol Deeloum	นพอดล
6431501027	Nuttaphon Keawarsa	นัฐพจน
6431501088	Phutthachat Ninnarat	พุตถชาติ
6431501046	Tanwalai Niumsawan	ตันวัลย์
6431501154	Sopon Jaiyong	โสพน
6431501093	Phuwadech Promlas	พรวเดช
6431501127	Aekbodin Sarakool	เอกบดิน
6431501151	Sahapap Koonkhai	สาหป
6431501058	Naraina seng	นารินทร์
6431501090	Phakorn Charoenthiphakorn	พกรณ์
6431501123	Suttipong Raipong	สุทธิพงษ์
6431501019	Chalita Khruangsakun	ชลิตา
6431501	Nopthira Srisanam	นพธิรา
6431501	Thannabool Srikoh	ธันนบูล
6431501	Poramet Kaewlangka	ปอระเมตรี
6431501	Khunkao Wanakan	ขุณเฑาะ
6431501070	Piyarals Techaprasertkul	Piyarat

Instructor:Date.....Signature

10. Please share any additional comments or feedback regarding the course on industry 4.0, PLC, and automation.

- A. Comprehensive Coverage The course provided a comprehensive overview of Industry 4.0, PLC, and automation, covering all the key areas effectively.
- B. Needs More Depth While the course was informative, it needs to delve deeper into certain complex topics to provide a more thorough understanding.
- C. Well-Structured The course was well-structured and organized.
- D. Great for Beginners This course is excellent for beginners, offering a solid foundation in the basics of Industry 4.0, PLC, and automation.

Submit

Course Survey summary (Embedded Systems and IoT)

Pre-Course Survey Summary (108 Students):

Familiarity with Embedded Systems and IoT:

Majority had basic to moderate knowledge, with a few having advanced proficiency and some with no familiarity.

Formal Training:

A significant portion of students had not received any formal training or education in these areas.

Expectations:

Students were looking to gain a comprehensive understanding of Embedded Systems and IoT, hands-on skills in programming, insights into implementation, and preparation for leadership roles.

Impact on Career:

Students anticipated that knowledge in these fields would lead to enhanced job opportunities, skill advancement, and leadership roles in technological transformation.

Comfort with Technology:

The comfort level varied, with a general trend towards moderate to very comfortable in using technology and software tools.

Focus Areas:

Interests were broad, including robotics, data analytics, cybersecurity, and process optimization.

Anticipated Challenges:

Concerns were raised about technical complexity, applying theory to practical situations, keeping up with rapid advancements, and integrating interdisciplinary knowledge.

Post-Course Survey Summary (130 students):**Familiarity with Embedded Systems and IoT:**

Post-course responses indicated an overall increase in familiarity, with most students reporting moderate to advanced proficiency.

Course Content Satisfaction:

The majority rated the course content positively, stating it met or exceeded expectations.

Valuable Skills and Knowledge:

Skills in advanced automation technologies, data analytics, cybersecurity, and IoT integration were found most valuable.

Career Preparation:

Students felt significantly to thoroughly prepared for career opportunities related to the subject.

Confidence in Applying Concepts:

Confidence levels were generally high, with students feeling somewhat to very confident in applying what they learned.

Encountered Challenges:

Some students still struggled with technical complexity and the application of theory, but fewer reported significant challenges.

Overall Course Quality:

The overall quality of the course was rated highly, with commendations on teaching methods, course materials, and support.

Recommendations:

A strong majority would recommend the course to others, though some had reservations.

Suggestions for Improvement:

Recommendations included enhancing practical components, updating materials, improving instructor engagement, and expanding the curriculum.

Additional Feedback:

Many appreciated the comprehensive coverage and structure, though some suggested a need for deeper exploration of complex topics.











School of Information Technology
Mae Fah Luang University

Program: Bachelor program in Computer Engineering Academic Year: 2023

Year: 3rd year Semester: 1 Credit: 3 (3 Hours lecture per week) 45 hours in total

Course code: 1501319 Course Title: Fundamental of Electrical Engineering

Number of students:

By signing this document, I confirm that I'm a regular student registered in this course and I have completed the lesson of this course in the academic year.

Attendance List

Instructor: Asst. Prof. Rounsang Chairicharoen, Ph.D.

Student ID	Name - Surname	Signature
6431501050	Nopthira Srisanm	Nopthira
6431501004	Kritchawat Nitiprinyanuwat	Kritchawat
6431501038	Thanabool Srikoh.	Thanabool.
6431501173	Phyo Thana	Phyo
6431501174	Salai David Poi Han	
6331501122	Wasinee Ungphiw	Wasinee
6331501121	Janpim charoensurapong	Janpim
6431501115	Siripiphat Tasee	Siripiphat
6431501093	Phumadech Promlas	Phumadech
6431501154	Sopon Jaiyong	Sopon
6431501019	Chalita Khruangsakun	Popae
6431501067	Pannarat Tritanachob	Pannarat
6431501029	Nattiga Tunthong	Nattiga
6431501081	Phatcharaphon Iadkarw	Phatcharaphon
6431501017	Chomphonut Phontai	Chomphonut
6431501098	Pornsaowan Lon san	Pornsaowan
6431501044	Thamonwan Khwanthongyen	Thamonwan

Instructor: date and signature.....

10. Please share any additional comments or feedback regarding the course on industry 4.0, PLC, and automation.

- A. Comprehensive Coverage The course provided a comprehensive overview of Industry 4.0, PLC, and automation, covering all the key areas effectively.
- B. Needs More Depth While the course was informative, it needs to delve deeper into certain complex topics to provide a more thorough understanding.
- C. Well-Structured The course was well-structured and organized.
- D. Great for Beginners This course is excellent for beginners, offering a solid foundation in the basics of Industry 4.0, PLC, and automation.

Submit

Summary: Fundamental of Electrical Engineering

Pre-course surveys:

In the Fundamentals of Electrical Engineering (EE) course, a pre-survey of 16 students showed that most had little to moderate expertise, while others had advanced knowledge or none. The group rarely had formal EE training. Students expect to learn EE basics, obtain practical skills, and stay current. EE was seen as a path to better professional chances, technical specialization, and leadership potential, with reasonable comfort with technology and software. Circuit design and renewable energy were among the interests, but technical complexity and theory applicability were concerns.

Post-course surveys:

All 15 students in the post-survey reported improved EE basic knowledge after the session. The training provided a solid foundation in EE, beyond expectations. Students enjoyed learning circuit analysis and sustainable energy technology. They indicated a significant increase in preparation for EE employment and confidence in applying course knowledge. Although some issues remained, the number of pupils with major challenges dropped. Course quality, instructional technique, materials, and instructor support were praised. Positive recommendations showed that the course was effective in giving beginners a solid understanding of EE, and feedback indicated that the course was comprehensive and well-structured, with less emphasis on improvements, indicating general satisfaction with its scope and delivery. From pre-course expectations to post-course outcomes, students' EE basic knowledge has grown and improved.





School of Information Technology
Mae Fah Luang University

Program: Bachelor program in Computer Engineering Academic Year: 2023

Year: 3rd year Semester: 1 Credit: 3 (2 Hours Lab 2 Hours lecture per week) 60 hours in total

Course code: 1501217 Course Title: Model Based Design

Number of students:

By signing this document, I confirm that I'm a regular student registered in this course and I have completed the lesson of this course in the academic year.

Attendance List

Instructor: Asst. Prof. Rungsan Chairsricharoen, Ph.D.

Student ID	Name - Surname	Signature
6431501017	Chomphonut Phontoi	Chomphonut Phontoi
6431501081	Phakchuraphan Luksorn	Phakchuraphan Luksorn
6431501045	Thummarak Thongwong	Thummarak Thongwong
6431501015	Kasidit Chaikeunrath	Kasidit Chaikeunrath
6431501017	Chandana Pongson	Chandana Pongson
6431501009	Kirana Autkonthi	Kirana Autkonthi
6431501021	Chanikan Prasatsin	Chanikan Prasatsin
6431501102	Werawat Khumnoi	Werawat Khumnoi
6431501099	Potchanadani Jachakorn	Potchanadani Jachakorn
6431501157	Irasin Watwongpong	Irasin Watwongpong
6431501024	Yarida Fuangfoe	Yarida Fuangfoe
6431501123	Suttipong Raiphon	Suttipong Raiphon
6431501159	Montawat Thongkam	Montawat Thongkam
6431501150	Sorawit Sritichai	Sorawit Sritichai
6431501042	Thanawat Sansiang	Thanawat Sansiang
6431501029	Nattiga Tunthong	Nattiga Tunthong
6431501107	Witchayin Sopanri	Witchayin Sopanri
6431501122	Siraphob Phuttawat	Siraphob Phuttawat
6431501127	Aekbatin Sarakool	Aekbatin Sarakool
6431501067	Pawarat Trikanthob	Pawarat Trikanthob
6431501151	Sahapap Koonthai	Sahapap Koonthai
6431501143	Pattarapol Srijaroenhok	Pattarapol Srijaroenhok
6431501063	Pornamet Chantaphin	Pornamet Chantaphin
6431501043	Thanavit Senyakhong	Thanavit Senyakhong

Instructor: date and signature.....

Student ID	Name - Surname	Signature
6431501038	Thanabool Srikoh	Thanabool
6431501004	Kritcharat Niti parinyanawat	Kritcharat
6441501012	Chirarat Pongprong	Chirarat
6481501034	Pongsatorn Jiamtrakul	Pongsatorn
6491501053	Nopatorn Nemsue	Nopatorn
6491501047	Tam Jaihan	Tam
6431501028	Natdanai Jirapatanapong	Natdanai
6481501031	Nattapat Rakkhao	Nattapat
6431501141	Paratee Patcharaveevard	Paratee
6431501043	Pornnapha Naphitot	Pornnapha
6481501103	Withawit Malai	Withawit
6331501121	Jampim Charoengratorn	Jampim
6431501122	Wasinee Ungphiw	Wasinee
6481501095	Manlika Chaiwong	Manlika
6481501166	Siriwat Nummea	Siriwat
6431501140	Panchaya Rueangsi	Panchaya
6431501095	Peeranut Phitabham	Peeranut
6431501130	Natchapat Netdee	Natchapat
6431501026	Thititorn Thunphitak	Thititorn
6431501036	Songwat Sackee	Songwat
6481501020	Chaliporn Tetarat	Chaliporn
6431501068	Pongkarn Saikruakom	Pongkarn
6431501136	Thitiphat Yingsud	Thitiphat

Instructor: date and signature

Summary : Model Based Design

Pre-course survey:

The Model-Based Design course's 46 pre-survey responses showed a wide range of knowledge about the subject, primarily basic to moderate, with a few reporting complete unfamiliarity or advanced competency. Model-based design training was new to most of these students, allowing for significant growth. Students took the course to acquire theoretical knowledge and practical expertise in model-based design applications to advance their professions. Despite some early discomfort with model-based design technologies and software tools, mastery was expected to open up options for specialization and innovation in their future careers. Their enthusiasm for a variety of domain subjects was tempered the anticipated difficulties in comprehending technical details and applying theoretical models.

Post-course survey:

43 students reported improvement after the training. Many students reported a rise in model-based design proficiency. Due to its in-depth insights and hands-on experience, the training met and exceeded expectations. For students interested in design and development careers, simulation, system modeling, and design validation were among the most valuable talents. The confidence of students to apply model-based design principles in real life increased. While technical challenges persisted, they were less frightening after the course, suggesting that teaching methods, course materials, and instructor support reduced them. The course was well-received for teaching model-based design. Based on students' enhanced preparation and satisfaction, the course was likely to be recommended. According to the post-survey, students had improved in competence and confidence, proving that the course was effective in teaching model-based design principles.



Asean FACTORI 4.0 UGA / MFU
Erasmus+ 2019-2023

SIEMENS

SIMATIC HMI

TOUCH

STOP

FACTORI
4.0

Co-funded by the
Erasmus+ Programme
of the European Union

SIEMENS

SIMATIC
37-1500

ESC

BOF





