Full-time 4-year Undergraduate Degrees - Minor Programme

1.	**Title of Minor Programme & Programme Code**	Minor in Electronic Systems and Internet-of-Things (46409-YEI)
2.	**Offering Department(s) in Full & in Abbreviation**	Department of Electrical and Electronic Engineering (EEE)
3.	**Requirement for Claiming the Minor Award**	Attained 18 credits from the subjects listed under section 7, of which at least 9 credits are at level 3 or above and 1 compulsory subject. (Note: Students should observe the pre-requisites requirement when choosing the subjects. Such information is available from the BEng (Hons)/BSc (Hons) Scheme in Information and Artificial Intelligence Engineering (46409) Scheme Programme Booklet)
4.	**Exclusive Programme(s) & Programme Code(s)**	BEng (Hons) in Electronic and Information Engineering (46402) BEng (Hons) in Electronic Systems and Internet-of-Things (46409-ESI) BSc (Hons) in Information Security (46409-INS) BEng (Hons) in Internet-of-Things with a Secondary Major in Artificial Intelligence and Data Analytics (46409-XAI)
5.	**Effective Year**	For students admitted from 2022-23 onwards
6.	**Professional Recognition**	Students taking the Minor in ESIoT programme may not satisfy the academic requirements for Corporate Membership of the Hong Kong Institution of Engineers (HKIE).

7.	Subject Code	Subject Title	Subject Offering Department/ Faculty	Level	Credit Value	Subject Nature (Compulsory /Elective)
	AMA1110	Introduction to Internet of Things	AMA	1	3	Elective
	AMA1120	Basic Mathematics II – Calculus and Linear Algebra	AMA	1	3	Elective
	AMA2111	Mathematics I	AMA	2	3	Elective
	EIE1003	Foundations of Data Science	EEE	2	3	Elective
	EIE1004	Introduction to Information and Artificial Intelligence Engineering	EEE	1	3	Elective
	EIE2110	Basic Circuit Analysis and Electronics	EEE	2	3	Elective
	EIE2113	Introduction to Internet of Things	EEE	2	3	**Compulsory**
	EIE2211	Logic Design	EEE	2	3	Elective
	ENG2002	Computer Programming	FENG	2	3	Elective
	ENG2003	Information Technology	FENG	2	3	Elective
	EIE3109	Mobile Systems and Application Development	EEE	3	3	Elective
	EIE3112	Database System	EEE	3	3	Elective
	EIE3123	Dynamic Electronic Systems	EEE	3	3	Elective
	EIE3124	Fundamentals of Machine Intelligence	EEE	3	3	Elective
	EIE3127	Artificial Intelligence of Things	EEE	3	3	Elective

EIE3128	IoT Project	EEE	3	3	Elective
EIE3129	IoT Security	EEE	3	3	Elective
EIE3130	Network Security	EEE	3	3	Elective
EIE3311	Computer System Fundamentals	EEE	3	3	Elective
EIE3312	Linear Systems	EEE	3	3	Elective
EIE3320	Object-oriented Design and Programming	EEE	3	3	Elective
EIE3331	Communication Fundamentals	EEE	3	3	Elective
EIE3333	Data and Computer Communications	EEE	3	3	Elective
EIE3373	Microcontroller Systems and Interface	EEE	3	3	Elective
EIE4100	Computer Vision and Pattern Recognition	EEE	4	3	Elective
EIE4102	IP Networks	EEE	4	3	Elective
EIE4104	Mobile Networking	EEE	4	3	Elective
EIE4105	Multimodal Human Computer Interaction Technology	EEE	4	3	Elective
EIE4108	Distributed Systems and Cloud Computing	EEE	4	3	Elective
EIE4110	Introduction to VLSI and Computer-Aided Circuit Design	EEE	4	3	Elective
EIE4113	Wireless and Mobile Systems	EEE	4	3	Elective
EIE4119	Mobile Device System Architecture	EEE	4	3	Elective
EIE4122	Deep Learning and Deep Neural Networks	EEE	4	3	Elective
EIE4123	Healthcare Technology	EEE	4	3	Elective
EIE4124	Modern Robotics	EEE	4	3	Elective
EIE4125	Power Conversion Technology for Energy Harvesting	EEE	4	3	Elective
EIE4413	Digital Signal Processing	EEE	4	3	Elective
EIE4432	Web Systems and Technologies	EEE	4	3	Elective
EIE4435	Image and Audio Processing	EEE	4	3	Elective
EIE4449	Optical Communication Systems and Networks	EEE	4	3	Elective

Remark:

i.   Please note that the subject pre-requisite requirements of the BEng(Hons) in Electronic Systems and Internet-of-Things (46409-ESI) will also apply to this Minor in ESIoT programme. For details of the subject pre-requisites of the 46409-ESI programme, please refer to the 46409-ESI programme booklet which is available at the departmental website at
https://www.polyu.edu.hk/eee/study/information-for-current-students/programme-documents/.

ii. For detailed syllabus and subject pre-requisite/co-requisite/exclusion requirement, please visit the following AR subject registration website:

http://www.polyu.edu.hk/student > Subject Registration > Subject Information

iii. The above requirements and list of subjects are subject to review and changes which the Department can decide to make from time to time. Students will be informed of the changes as and when appropriate.

September 2023