

5. PROPENAS の「開発プログラム政策マトリックス」における
高等教育マトリックス

PROPENAS の「開発プログラム政策マトリックス」における高等教育マトリックス

No	国家ガイドライン政策方針	国家プログラム	目標達成活動の指標
1	インドネシア全土における、質の高い公正な教育機会均等を目指し尽力する。そのための教育予算の増額配当を実施する。	高等教育	1.高等教育の総就学率が 15%に向上。 2.経済と科学技術を支える学術の能力が向上。 3.民間高等教育機関を通し、民間セクターの役割の拡大。 4.経済的困難家庭の学生対象の、奨学制度の増強。 5.地域開発支援を目的とした高等教育の地理的拡充。 6.高等教育セクター予算配分の段階的増額。
2	教育人材の質向上を指導と統合的・包括的支援により早期に実現する。インドネシア国教育分野の要素を考慮した予防的・事後的対策を実施し、青少年を支援して、青少年の可能性が生かされる教育の権利を保障する。	高等教育	1.国家開発ニーズに応じた研究プログラムの策定。 2.教育従事者の質が向上し S2、S3 取得講師が増加。 3.地域、国家、世界の各レベルのカリキュラム開発・策定。 4.研究分野での、研究の質の向上 5.地域、産業セクターが有効活用できる高等教育研究成果増加。
3	学校内外の教育従事機関を奨励し、教育施設の価値と特質を尊重。 適切な施設整備により、家庭と地域の教育参加を促す。 国家教育システム改革・モニタリングを研究・教育機関運営地方自治化に基づき実施する。 科学技術と文化芸術の効果的・効率的共同システム構築により地域・地方自治運営の教育機関の質を改善する。	高等教育	1.運営自治権をもつ高等教育機関が増加。 2.高等教育の研究成果を活用し、教育機関と企業・地域社会の明確な共同メカニズムの構築。 3.教育機関基準認定の定期的・効果的・効率的な実施。 4.高等教育の学位・修了資格授与の品質管理規則の整備。 5.自己評価能力の向上、教育授受過程の質的向上、高等教育機関の開発計画質的改善。

No	国家がドライン政策方針	国家プログラム	目標達成活動の指標
4	科学技術開発活用の改善を図り、特に中小企業分野での国内人材による技術開発を推進する。また、企業間協力により、地域資源を活用した地域産品の競争力を増大する。	国家教育開発計画の共同と統合	1. 国内レベルのプログラム路線、プログラムタイプ、地域間教育プログラムを可能にする国家教育計画の存在。 2. 国内レベルのプログラム路線、プログラムタイプ、地域間教育プログラムを可能にする、国家教育システムの法・制度の存在。 3. 国内レベルのプログラム路線、プログラムタイプ、地域間教育プログラムを可能にする、教育事業モデルの存在。 4. 国内レベルのプログラム路線、プログラムタイプ、地域間教育プログラムを可能にする情報、管理、スーパービジョン、調整システムの存在。
		科学技術資源能力開発・改善・研究	1. 開発プログラムにおける科学技術の役割拡大。 2. 国際機関と企業セクターを含む他の教育機関との共同研究の増加。 3. 地域ニーズと実績指標評価システムに基づいた、研究開発機関レベルおよびユニットレベルの、戦略策定の実現。 4. 知的財産所有権・著作権 HAKI と情報システムの存在。HAKI は研究実績の指標としても活用。著作権適応拡大。 5. 研究プロポーザルの選定プロセスでの審査参加の拡充。 6. 世界レベルの専門技術資格と教育機関判定基準拡大。
		科学技術能力と自己管理能力の向上	1. 企業セクターの研究成果と開発能力の応用を可能にする、マーケティング・ユニットの存在。 2. 技術・工学事業需要の評価にかかわる情報の存在。 3. 研究開発活動への地域コミュニティと企業の参画増加。 4. 科学技術の発展を促す、教育施設システムと法規システムおよび財源の存在。

資料: PROPENAS Chapter VII, Matrix of Education Development Program Policy より高等教育セクタープログラムおよび科学技術セクタープログラムのみを抜粋

6. 学科別 EEPIS の D4 コースの取得単位計画数

学科別 EEPIS の D4 コースの取得単位計画数

学 科	項 目	単 位			
	学 期	奇数学期	偶数学期	合計	比率
電気工学科	座 学	63	50	113	76.9%
	実験・実習	15	19	34	23.1%
	小 計	78	69	147	
電子工学科	座 学	61	49	110	74.3%
	実験・実習	16	22	38	25.7%
	小 計	77	71	148	
通信工学科	座 学	63	54	117	77.0%
	実験・実習	15	20	35	23.0%
	小 計	78	74	152	
情報工学科	座 学	54	51	105	69.1%
	実験・実習	24	23	47	30.9%
	小 計	78	74	152	
合 計	座 学	241	204	445	74.3%
	実験・実習	70	84	154	25.7%
	合 計	311	288	599	

資料：EEPIS 提供資料

注：授業時間数は以下のとおり；

座学・・・1 単位あたり 2 時間

実験・実習・・・1 単位あたり 3 時間

工場/現場実習・・・1 単位あたり 4 時間

Form-1

TENTATIVE CURRICULUM

ELECTRICAL ENGINEERING STUDY PROGRAM (D4)

SEMESTER 1		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Pancasila	2		2		
2	Religion	2		2		
3	Mathematics 1	2		4		
4	English 1	2		2		
5	Electric Circuit 1	2		4		
6	Electric Measurement 1	1	1	2	3	
7	Programming Logic	1	1	2	3	
8	Engineering Physics	2		2		
9	Electronic Devices 1	2		4		
10	Electrical Material	1		2		
11	Electromechanical Workshop	1	1	2	3	
12	Technology Concept and Life Environment		2		2	
Sub-total		18	5	28	11	
Total		23		39		

SEMESTER 2		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Mathematics 2	2		4		
2	English 2	2		2		
3	Electric Circuit 2	2		4		
4	Electric Measurement 2	2		4		
5	C Language	1	1	2	3	
6	Electronic Devices 2	2		4		
7	Technical Drawing	1	1	2	3	
8	Electromagnetic 1	2		4		
9	Practice 1: Electronic Devices / Electric Measurement		1		3	
10	Practice 2: Electric Circuit/Engineering Physics		1		3	
11	Basic Installation	1		2		
Sub-total		15	4	28	12	
Total		19		40		

SEMESTER 3		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Mathematics 3	2		4		
2	English 3	2		2		
3	Electric Circuit 3	2		4		
4	Advanced C Language	1	1	2	3	
5	Electronics Circuit 1	2		4		
6	Electromagnetic 2	2		4		
7	Electric Power System	1		2		
8	Practice 1: Electronic Circuit / Electric Circuit		1		3	
9	Practice 2: Electric Power System / Electromagnetics / DC Machines		1		3	
10	Electrical Machine	1		2		
11	Installation for Industries		1		3	
12	Transformer 1	1		2		
Sub-total		14	4	26	12	
Total		18		38		

SEMESTER 4		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Mathematics 4	2		4		
2	English 4	2		2		
3	Assembly Language	1	1	2	3	
4	Numerical Analysis	1	1	2	3	
5	Electronics Circuit 2	1		2		
6	Digital Electronics 1	2		4		
7	Control System 1	1		2		
8	Basic Communication System	1		2		
9	Transformer 2	1		2		
10	Electrical Machine 2	2		4		
9	Practice 1: Digital Electronics / Electronics Circuit		1		3	
10	Practice 2: Signal and Systems / AC Machines / Transformer		1		3	
Sub-total		14	4	26	12	
Total		18		38		

SEMESTER 5		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Statistic and Probability	2		4		
2	English 5	2		2		
3	Electronic Circuit 3	2		4		
4	Digital Electronics 2	2		4		
5	Control System 2	1		2		
6	Microprocessor & Interface 1	2		4		
7	Industrial Control Engineering 1	1		2		
8	Power Electronics 1	2		4		
9	Practice 1: Digital Electronics / Electronic Circuit		1		3	
10	Practice 2: Microprocessor / Control System / Industrial Control		1		3	
11	Electrical Workshop		1		4	
12	Distribution & Transmission	1		2		
13	Quality Control	1		2		
	Sub-total	16	3	30	10	
	Total	19		40		

SEMESTER 6		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Engineering Mathematics	2		4		
2	English 6	2		2		
3	Microprocessor and Interface 1	2	1	4	3	
4	Industrial Control Engineering 2	1		2		
5	In-plant Training	1			(4)	at industry
6	Scientific Writing and Presentation	1		2		
7	Power Electronics 2	2		4		
8	Simulation of Power Electronics	1	1	2	3	
9	Practice 1: Power Electronics / Industrial Control Eng'g 2		1		3	
10	Electrical Workshop		1		4	
11	Introduction to High Voltage Technology	1		2		
	Sub-total	13	4	22	13	
	Total	17		35		

SEMESTER 7		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Electric Devices	1		2		
2	Power Electronics Workshop	1		4		
3	Factory Automation and Industries 1	1		2		
4	Power Quality	1		2		
5	Industrial Installation	1		2		
6	Protective and Relaying	1		2		
7	Financial and Management Accounting	2		2		
8	Education Psychology	2		2		
9	Teaching and Learning	2		2		
10	Digital Signal Processing (DSP) and Applications	1		2		
11	Power System Analysis	1		2		
12	Preliminary Research for Final Project		1		3	
13	Practice 1: Factory Automation & Instr. / Power Quality		1		3	
14	Practice 1: DSP and Applications / Industrial Installation		1		3	
15	Magnetic and Dielectric Device Design	1		2		
	Sub-total	15	3	26	9	
	Total	18		35		

SEMESTER 8		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Factory Automation and Instrumentation 2	1		2		
2	Implementation Artificial Intelligent on Electric Devices	2		5		
3	Human Resources	2		2		
4	International Standard and Work Safety	2		2		
5	Final Project		6		18	
6	Practice 1: Factory Automation & Instr. 2 / Electric Devices 1 / Protective and Relaying		1		3	
7	Teaching Practice and Evaluation	1		4		
	Sub-total	8	7	15	21	
	Total	15		36		

		Credits		Hours	
		T	P	T	P
	Sub-total (odd semester)	63	15	110	42
	Sub-total (even semester)	50	19	91	58
	Sub-total (even & odd semester)	113	34	201	100
	Grand Total	147		301	

Form-1

TENTATIVE CURRICULUM

ELECTRONICS ENGINEERING STUDY PROGRAM (D4)

SEMESTER 1		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Mathematics 1	2		4		
2	English 1	2		2		
3	Electric Circuit 1	2		4		
4	Electric Measurement 1	1	1	2	3	
5	Programming Logic	1	1	2	3	
6	Pancasila	2		2		
7	Engineering Physics	2		2		
8	Electronic Devices 1	2		4		
9	Electrical Material	1		2		
10	Electromechanical Workshop	1	1	2	3	
11	Religion	2		2		
Sub-total		18	3	28	9	
Total		21		37		

SEMESTER 2		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Mathematics 2	2		4		
2	English 2	2		2		
3	Electric Circuit 2	2		4		
4	Electric Measurement 2	2		4		
5	C Language	1	1	2	3	
6	Electronic Devices 2	2		4		
7	Technical Drawing	1	1	2	3	
8	Electromagnetic 1	2		4		
9	Practice 1: Electronic Devices / Electric Measurement		1		3	
10	Practice 2: Electric Circuit / Engineering Physics		1		3	
Sub-total		14	4	26	12	
Total		18		38		

SEMESTER 3		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Mathematics 3	2		4		
2	English 3	2		2		
3	Electric Circuit 3	2		4		
4	Advanced C Language	1	1	2	3	
5	Technology Concept and Life Environment	2		2		
6	Electric Circuit 1	2		4		
7	Electromagnetic 2	2		4		
8	Electric Power System	1		2		
9	Practice 1: Electronic Circuit / Electric Circuit		1		3	
10	Practice 2: Electric Power System / Electromagnetics		1		3	
11	Electronic Workshop 1	1	1	2	3	
Sub-total		15	4	26	12	
Total		19		38		

SEMESTER 4		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Mathematics 4	2		4		
2	English 4	2		2		
3	Assembly Language	1	1	2	3	
4	Numerical Analysis	1	1	2	3	
5	Electronics Circuit 2	1		2		
6	Digital Electronics 1	2		4		
7	Signal and Systems	2	1	4	3	
8	Basic Communication System	1		2		
9	Practice 1: Digital Electronics / Electronics Circuit		1		3	
10	Electronic Workshop 2		1		3	
Sub-total		12	5	22	15	
Total		17		37		

SEMESTER 5		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Statistic and Probability	2		4		
2	English 5	2		2		
3	Electronic Circuit 3	2		4		
4	Digital Electronics 2	2		4		
5	Control System 1	1		2		
6	Digital Signal Processing	2		4		
7	Optical Electronics 1	1		2		
8	Microprocessor and Interface 1	1	1	2	3	
9	Industrial Electronics 1	1	1	2	3	
10	Practice 1: Digital Electronics / Electronic Circuit		1		3	
11	Practice 2 : Power Electronics / Control System		1		3	
Sub-total		14	4	26	12	
Total		18		38		

SEMESTER 6		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Engineering Mathematics	2		4		
2	English 6	2		2		
3	Microprocessor and Interface 2	2	1	4	3	
4	Control System 2	2		4		
5	Quality Control 1	1		2		
6	Scientific Writing and Presentation	2		2		
7	Industrial Electronics 2	1	1	2	3	
8	Optical Electronics 2	1	1	2	3	
9	In-plant Training		1		(4)	at industry
10	Practice 1: Optical Electronics / Control System		1		3	
Sub-total		13	5	22	12	
Total		18		34		(38 hrs.)

SEMESTER 7		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Biomedical System	1		2		
2	Computer Logic Design	2		4		
3	Preliminary Research		1		3	
4	Telemetry	1		2		
5	Embedded Processor	1	1	2	3	
6	Digital Control	1		2		
7	Real-time System	1		2		
8	Multimedia Processing	1	1	2	3	
9	Mechatronics	2	1	4	3	
10	International Standard and Work Safety	2		2		
11	Financial and Management Accounting	2		2		
12	Practice: Digital Control / Telemetry		1		3	
Sub-total		14	5	24	15	
Total		19		39		

SEMESTER 8		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Human Resources Management	2		2		
2	Final Project		6		18	
3	Medical Electronics	1		2		
4	VLSI Design	1	1	2	3	
5	Intelligent Control	1		2		
6	Educational Psychology	2		2		
7	Teaching Methodology	2		2		
8	Teaching Practice and Evaluation	1		4		
9	Practice: Intelligent Control / Medical Electronics		1		3	
Sub-total		10	8	16	24	
Total		18		40		

	Credits		Hours	
	T	P	T	P
Sub-total (odd semester)	61	16	104	48
Sub-total (even semester)	49	22	86	63
Sub-total (even & odd semester)	110	38	190	111
Grand Total	148		301	

Form-1
TENTATIVE CURRICULUM
TELECOMMUNICATION STUDY PROGRAM

SEMESTER 1		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Technical Drawing	1	1	2	3	
2	Pancasila	2		2		
3	Mathematics 1	2		4		
4	English 1	2		2		
5	Electric Circuit 1	2		4		
6	Electric Measurement 1	1	1	2	3	
7	Programming Logic	1	1	2	3	
8	Engineering Physics	1		2		
9	Electronic Devices 1	2		4		
10	Electric Components	1		2		
11	Electromechanical Workshop	1	1	2	3	
Sub-total		16	4	28	12	
Total		20		40		

SEMESTER 2		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Mathematics 2	2		4		
2	English 2	2		2		
3	Electric Circuit 2	2		4		
4	Basic Electronic Workshop		1		3	
5	Electric Measurement 2	2		4		
6	C Language	1	1	2	3	
7	Electronic Devices 2	2		4		
8	Electronic Circuit 1	2		4		
10	Electromagnetics 1	2		4		
11	Practice 1: Electronic Devices / Electric Measurement		1		3	
12	Practice 2: Electric Circuit / Engineering Physics / Electronic Circuit		1		3	
Sub-total		15	4	28	12	
Total		19		40		

SEMESTER 3		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Mathematics 3	2		4		
2	English 3	2		2		
3	Kewiraan	2		2		
4	Electric Circuit 3	2		4		
5	Advanced C Language	1	1	2	3	
6	Electronics Circuit 2	1		2		
7	Electromagnetic 2	1		2		
8	Electric Power System	1		2		
9	Electronic Workshop 1	1	1	2	3	
10	Digital Electronics 1	1		2		
11	Technology Concept and Life Environment	2		2		
12	Practice 1: Electronic Circuit 2 / Digital Electronics 1 / Electric Circuit 3		1		3	
13	Practice 2: Electric Power Systems / Electromagnetics		1		3	
Sub-total		16	4	26	12	
Total		20		38		

SEMESTER 4		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Mathematics 4	2		4		
2	English 4	2		2		
3	Assembly Language	1	1	2	3	
4	Numerical Analysis	1	1	2	3	
5	Electronics Circuit 3	1		2		
6	Digital Electronics 2	2		4		
7	Signal and Systems	1		2		
8	Basic Communication Systems	2		4		
9	Electronic Workshop 2	1	1	2	3	
10	Practice 1: Digital Electronics 2 / Electronic Circuit 3		1		3	
11	Practice 2: Basic Communication Systems / Signal and Systems		1		3	
Sub-total		13	5	24	15	
Total		18		39		

SEMESTER 5		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Statistic and Probability	2		4		
2	English 5	2		2		
3	Microprocessor & Interface 1	2		4		
4	Digital Signal Processing	2		4		
5	Automatic Control 1	2		4		
6	Communication Circuit & Systems	2		4		
7	Transmission Line and Waveguide	2		4		
8	Optical Communication Systems	2		4		
9	Practice 1: Microprocessor & Interface 1 / Automatic Control 1		1		3	
10	Practice 2: Transmission Line & Waveguide / Communication Circuit & Systems		1		3	
11	Practice 3: Optical Communication Systems / Digital Signal Processing		1		3	
Sub-total		16	3	30	9	
Total		19		39		

SEMESTER 6		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Engineering Mathematics	2		4		
2	English 6	2		2		
3	Microprocessor & Interface 2	2	1	4	3	
4	Automatic Control 2	1		2		
5	Quality Control	2		4		
6	Scientific Writing	2		2		
7	Radio Wave Instruments and Measurements	2		4		
8	Antenna and Wave Propagation	1		2		
9	Digital Telephony	2		4		
10	Practice 1: Digital Telephony / Automatic Control 2		1		3	
11	Practice 2: Radio Wave Instruments and Measurement / Antenna and Wave Propagation		1		3	
12	In-Plant Training		1		(4)	at industry
Sub-total		16	4	28	9	
Total		20		37		(41 hrs.)

SEMESTER 7		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Religion	2		2		
2	International Standard and Work Safety	2		2		
3	Preliminary Research		1		3	
4	Financial & Management Accounting	2		2		
5	Maintenance, Repair & Calibration	1	1	2	3	
6	Digital Modulation and Coding	2		4		
7	Data Communications	2		4		
8	Mobile Communications	2		4		
9	Digital Transmission Systems	2		4		
10	Practice 1: Digital Modulation & Coding / Mobile Communication		1		3	
11	Practice 2: Data Communications / Digital Transmission Systems		1		3	
Sub-total		15	4	24	12	
Total		19		36		

SEMESTER 8		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Human Resources Management	2		2		
2	Teaching Practice and Evaluation	1		4		
3	Teaching Methodology	2		2		
4	Educational Psychology	2		2		
5	Final Project		6		18	
6	Distance Learning Technology	1		2		
7	Electromagnetic Compatibility (EMC)	1		2		
8	Radio Regulation and Patent System	1		2		
9	Practice: Distance Learning Technology / Electromagnetic Compatibility (EMC)		1		3	
Sub-total		10	7	16	21	
Total		17		37		

	Credits		Hours	
	T	P	T	P
Sub-total (odd semester)	63	15	108	45
Sub-total (even semester)	54	20	96	57
Sub-total (even & odd semester)	117	35	204	102
Grand Total	152		306	

Form-1
TENTATIVE CURRICULUM
INFORMATION TECHNOLOGY STUDY PROGRAM (4)

SEMESTER 1		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Pancasila	2		2		
2	English 1	2		2		
3	Religion	2		2		
4	Kewiraan	2		2		
5	Mathematics 1	2		4		
6	Logic Circuit 1	1		2		
7	Electric Circuit & Measurement	2		4		
8	Information Technology Concept	1		2		
9	Programming 1	1		2		
10	Programming 1 Practice		2		4	
11	Applied Physics	1		2		
12	Applied Physics Practice		1		3	
13	Practice 1: Logic Circuit 1 / Electric Circuit & Measurement		1		3	
Sub-total		16	4	24	10	
Total		20		34		

SEMESTER 2		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	English 2	2		2		
2	Mathematics 2	2		4		
3	Industrial Management	1		2		
4	Matrix Algebra	1		2		
5	Discrete Mathematics	1		2		
6	Logic Circuit 2	1		2		
7	Electronic Digital Workshop		1		4	
8	Electronic Circuit	2		4		
9	Programming 2	2		4		
10	Programming 2 Practice		2		4	
11	Assembly Language	1		2		
12	Assembly Language Practice		1		3	
13	Introduction to Computer Hardware	1		2		
14	Practice 2: Electronic Circuit / Logic Circuit 2		1		3	
Sub-total		14	5	26	14	
Total		19		40		

SEMESTER 3		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	English 3	2		2		
2	Mathematics 3	2		4		
3	Computer Organization	1		2		
4	Theory of Computation (Automata)	1		2		
5	Database 1	1		2		
6	Database 1 Practice		1		3	
7	Numerical Method	1		2		
8	Numerical Method Practice		2		4	
9	Data Structures & Algorithms	2		4		
10	Data Structures & Algorithms Practice		1		3	
11	Operating System	2		4		
12	Operating System Practice		1		3	
13	Programming 3	2		4		
14	Programming 3 Practice		1		3	
Sub-total		14	6	26	16	
Total		20		42		

SEMESTER 4		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	English 4	2		2		
2	Mathematics 4	1		2		
3	CPU Architecture	1		2		
4	Compiler	2		4		
5	Data Communication	2		4		
6	Data Communication Practice		1		3	
7	Database 2	1		2		
8	Database 2 Practice		2		4	
9	Microprocessor in Embedded System	1		2		
10	Basic Communication System	2		4		
11	Basic Communication System Practice		1		3	
12	Computer Graphics	1		2		
13	Computer Graphics Practice		1		3	
14	Control System	1		2		
15	Practice 1: Microprocessor in Embedded System / Control System		1		3	
Sub-total		14	6	26	16	
Total		20		42		

SEMESTER 5		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	English 5	2		2		
2	Statistic and Probability	2		4		
3	Human Computer Interaction	1		2		
4	Software Engineering	1		2		
5	Modeling & Simulation	1		2		
6	Modeling & Simulation Practice		1		3	
7	Programming 4	1		2		
8	Programming 4 Practice		2		4	
9	Computer Network	2		4		
10	Computer Network Practice		1		3	
11	Signal Processing	2		4		
12	Signal Processing Practice		1		3	
13	Digital Image Processing	1		2		
14	Digital Image Processing Practice		2		4	
Sub-total		13	7	24	17	
Total		20		41		

SEMESTER 6		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	English 6	2		2		
2	Engineering Mathematics	2		4		
3	Artificial Intelligence	1		2		
4	Database Administration	1		2		
5	Geographical Information System	1		2		
6	Geographical Information System Practice		2		4	
7	Scientific Writing and Presentation	2		2		
8	Quality Control	1		2		
9	Speech Processing	1		2		
10	Speech Processing Practice		2		4	
11	Image Compression	1		2		
12	Image Compression Practice		2		4	
13	In-Plant Training	1		4		
Sub-total		13	6	24	12	
Total		19		36		

SEMESTER 7		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Preliminary Research	1		3		
2	International Standard and Work Safety	2		2		
3	Financial and Management Accounting	2		2		
4	Teaching Practice and Evaluation		1		4	
5	Distance Learning Technology	1		2		
6	Distance Learning Technology Practice		2		4	
7	Pattern Recognition	1		2		
8	Pattern Recognition Practice		2		4	
9	Multimedia Processing	1		2		
10	Multimedia Processing Practice		2		4	
11	Mobile Communication	1		2		
12	Information and Coding	1		2		
13	Design and Analysis of Information System	1		2		
Sub-total		11	7	19	16	
Total		18		35		

SEMESTER 8		Credits		Hours		Remarks/Note period etc.
No.	Subject	T	P	T	P	
1	Final Project		6		18	
2	Human Resources Management	2		2		
3	Education Psychology	2		2		
4	Teaching Methodology	2		2		
5	Computer Vision	2		4		
6	MIS Strategy Design	1		2		
7	Neural Network	1		2		
Sub-total		10	6	14	18	
Total		16		32		

	Credits		Hours	
	T	P	T	P
Sub-total (odd semester)	54	24	93	59
Sub-total (even semester)	51	23	90	60
Sub-total (even & odd semester)	105	47	183	119
Grand Total	152		302	