

Proposed NEP Structure for 4 Yr. B.Voc. (Solar Energy) Programme

I – Year Structure

Semester	Major Courses With Credit	Minor Courses With Credit	Multidis.	AEC	SEC	VAC	Voc. Course / Summer Internship Credit	Total Credits
1	1. Basic Semiconductor Electronics & Electrical Circuits (3) Code: 24-PHY-C-120 2. Solar Radiation, Thermal Conversion: Design and Installation – I (3) Code: 24-PHY-C-121 3. Semiconductor & Digital Electronics Lab. (2) Code: 24-PHY-C-122	1. Solar Radiation, Thermal Conversion: Design and Installation – I (3) Code: 24-PHY-M-123 2. Semiconductor & Digital Electronics Lab. (1) Code: 24-PHY-M-124	Renewable Energy and Storage (3) Code: 24-PHY-T-125	2	Basics of Solar PV Systems (3) Code: 24-PHY-S-126	2		22
2	1. Heat, Thermodynamics & Mass Transfer (3) Code: 24-PHY-C-170 2. Solar Radiation, Thermal Conversion: Design and Installation – II (3) Code: 24-PHY-C-171 3. Thermal Lab. (2) Code: 24-PHY-C-172	1. Solar Radiation, Thermal Conversion: Design and Installation – II (3) Code: 24-PHY-M-173 2. Thermal Lab. (1) Code: 24-PHY-M-174	Fundamentals of Safety & Protective Equipments (3) Code: 24-PHY-T-175	2	Basics of Solar Thermal Systems (3) Code: 24-PHY-S-176	2		22
	Summer Vacation						4 Only In Case of Exit After I Year	I Year Credit = 44 Or 48 In Case of Exit

II - Year Structure

Semester	Major Courses With Credit	Minor Courses With Credit	Multidis.	AEC	SEC	VAC	Voc. Course / Summer Internship Credit	Total Credits
3	1. Digital Electronics (3) Code: 24-PHY-C-220 2. Solar Photovoltaic Principles, Design (3) Code: 24-PHY-C-221 3. Solar-Thermal Training Lab. (2) Code: 24-PHY-C-222	1. Solar Photovoltaic Principles, Design (3) Code: 24-PHY-M-223 2. Solar-Thermal Training Lab. (1) Code: 24-PHY-M-224	3	2	--	2		19
4	1. Differential Equations (3) Code: 24-PHY-C-270 2. Power Generation Systems and Applications (3) Code: 24-PHY-C-271 3. Semiconductor Devices and Photonics Technology (3) Code: 24-PHY-C-272 4. Solar PV Training Lab - I (3) Code: 24-PHY-C-273	1. Power Generation Systems and Applications (3) Code: 24-PHY-M-274 2. Solar PV Training Lab - I (1) Code: 24-PHY-M-275	---	2	---	2		20
	Summer Vacation						4 Only In Case of Exit After II Year	II Year Credit = 39 Or 43 In Case of Exit

III – Year Structure

Semester	Major Courses With Credit	Minor Courses With Credit	Multidis	AEC	SEC	VAC	Voc. Course / Summer Internship Credit	Total Credits
5	<ol style="list-style-type: none"> 1. Special Functions and Integral Transforms (3) Code: 24-PHY-C-320 2. Materials for Solar thermal Systems (3) Code: 24-PHY-C-321 3. Power Electronics for Solar Energy Systems (3) Code: 24-PHY-C-322 4. Solar PV Training Lab-II (3) Code: 24-PHY-C-323 	<ol style="list-style-type: none"> 1. Materials for Solar thermal Systems (3) Code: 24-PHY-M-324 2. Solar PV Training Lab-II (1) Code: 24-PHY-M-325 	---	---	Solar Policy and Industrial Practices (3)	---		19
6	<ol style="list-style-type: none"> 1. Green and Energy Efficient Building (4) Code: 24-PHY-C-370 2. Solar Energy Grid Integration (4) Code: 24-PHY-C-371 3. Signal Conditioning and Transducers (4) Code: 24-PHY-C-372 4. Signal Conditioning & Operational Amplifier Lab. (4) Code: 24-PHY-C-373 	<ol style="list-style-type: none"> 1. Green and Energy Efficient Building (3) Code: 24-PHY-M-374 2. Signal Conditioning & Operational Amplifier Lab. (1) Code: 24-PHY-M-375 	---	---	---	---	02 – 04#	22 - 24
	Summer Vacation						4 Only In Case of Exit After III Year	III Year Credit = 41 - 43

IV – Year Structure

Semester	Major Courses With Credit	Minor Courses With Credit	Multidis	AEC	SEC	VAC	Voc. Course / Summer Intern. Credit	Total Credits
7	1. Numerical Analysis & Methods (4) Code: 24-PHY-C-420 2. Advanced Solar Thermal Energy Conversion Systems & Applications (4) Code: 24-PHY-C-421 3. Advanced Photovoltaic Solar Energy Systems & Applications (4) Code: 24-PHY-C-422 4. Solar PV Training Lab-III (4) Code: 24-PHY-C-423	1. Energy Systems & Applications (3) Code: 24-PHY-M-424 2. Solar PV Training Lab-III (1) Code: 24-PHY-M-425	---	---	---	---	---	20
8 (A)	1. Entrepreneurship, Energy Conservation Management and Decentralization of Energy System (4) Code: 24-PHY-C-470 2. Industrial Mathematics (4) Code: 24-PHY-C-471 3. Microcontrollers & Microprocessors (4) Code: 24-PHY-C-472 4. Microcontroller & Microprocessor Lab. (4) Code: 24-PHY-C-473	1. Microcontrollers & Microprocessors (3) Code: 24-PHY-M-474 2. Microcontroller & Microprocessor Lab. (1) Code: 24-PHY-M-475	---	---	---	---	---	20
8 (B)	1. Entrepreneurship, Energy Conservation Management and Decentralization of Energy Systems (4) Code: 24-PHY-C-470 2. Major Research Project (12) Code: 24-PHY-C-476							20
	Summer Vacation							IV Year Credit = 40

Total Credits: 164 - 166