## INP ENSEEIHT

## Master of Science Electrical Energy Systems 2018-2019

INP ENSIACET A7

## Optional Program : NEW ENERGY TECHNOLOGIES Learning Modules - ECTS Credits

3st theoretical semester Learning Modules	ECTS	Title of Courses
NY4E21 System Designs	8	
and Eco-Design	8	Design and Analysis of Proceeds
		Bond Graph Systemic Modelling
		Eco-design, LCA, Project Management
		Design by Optimization
		Study and Research Project "Design by Optimization"
		Study and Research Project "LCA"
		Study and Research Project "Design of Proceeds"
NY4E22 Hybrid System, Smart-Grids	8	Electrical Grids and Static Conversion
and Electrochemical Storage		Decentralised and Embedded Electrical Grids
		Energy Hybridization of Systems
		Electrochemistry
		Electrochemical Components
		Habitat
		Study and Research Project "Hybrid Energy Systems"
		Study and Research Project "Habitat"
		Study and Research Project "Fuel Cells"
NY4E23 Renewable Energies	8	Photovoltaic Systems
		Wind Energy Systems
		Blofuel Systems
		Study and Research Project "Photovoltaic Systems"
		Study and Research Project " Bio Valorization HT"
		Study and Research Project "Agrocombustibes"
		Valorization of High Temperture Biomas
NY4E24 General Learning	6	English
		Energy and Sustainable Development Thematic Days
TOTAL 1st Semester ECTS Credits	30	