

SiPN @ Técnico ULisboa  
 Emerging Topics in STEM: Engineering, Tech & Sustainability  
 Semester-long program  
 Built-in internships for academic credit available

**Cybersecurity Programme**

Curricular Units	Faculty	Degree	ECTS	Semester/ Period 22/23
<b>Cryptography and Security Protocols</b> <a href="#">↗</a>	Paulo Mateus	MECD, MEIC-A, MEIC-T, METI, MSIDC, MMA, MinCTQ	6	Spring - Q3 + Q4
<b>Communications Security</b> <a href="#">↗</a>	Carlos Ribeiro	MECD, MEEC	6	Spring - Q4
<b>Forensics Cyber-Security</b> <a href="#">↗</a>	Nuno Santos	MEIC-A, MEIC-T, METI	6	Fall - Q1
<b>Software Security</b> <a href="#">↗</a>	Ana Almeida Matos, Pedro Adão	MEIC-A, MEIC-T, METI	6	Fall – Q2
<b>Network and Computer Security</b> <a href="#">↗</a>	Miguel Pardal, Ricardo Chaves	MEIC-A, MEIC-T, MSIDC, MiTI	6	Fall – Q2
<b>Security and Management of Information Systems</b> <a href="#">↗</a>	José Borbinha	MEIC-A, MEIC-T, MEGIE	6	Spring - Q4
<b>Highly Dependable Systems</b> <a href="#">↗</a>	Miguel Matos, Rodrigo Miragaia Rodrigues	MEIC-A, MEIC-T, METI	6	Spring – Q3
<b>Advanced Network Security and Architectures</b> <a href="#">↗</a>	Rui Valadas	METI	6	Spring - Q4
<b>Cybersecurity Law*</b> <a href="#">↗</a>	n.a.	MSIDC	7,5	Fall - Q1+Q2
<b>Introduction to Computability, Complexity and Cryptography</b> <a href="#">↗</a>	Carlos Caleiro	MSIDC	7,5	Fall - Q1+Q2
<b>Information Assurance in Organizations</b> <sup>+</sup> <a href="#">↗</a>	n.a.	MSIDC	7,5	Fall - Q1+Q2

**Energy for the Future, Engineering for Sustainability and Humanitarian Engineering Programmes**

Curricular Units	Faculty	Degree	ECTS	Semester/ Period 22/23
<b>Biofuels</b> <a href="#">↗</a>	Joana Neiva Correia	MEAmbi, MEGE, MEQ	6	Fall - Q2
<b>Economics and Energy Markets</b> <a href="#">↗</a>	Rui Castro	MEEC, MEGE, MEGIE, MinEF	6	Fall - Q2
<b>Energy and Sustainability</b> <a href="#">↗</a>	Paulo Ferrão	MEMec, MEGE	6	Fall - Q2
<b>Energy Storage</b> <a href="#">↗</a>	Fátima Montemor	MERE, MEGE, MEQ, MinEF	6	Fall – Q1
<b>Energy Systems Management</b> <a href="#">↗</a>	Carlos Augusto Silva	MEMec, MERE, MEGE, MEGIE, MinEF, MinPER	6	Fall – Q1
<b>Environmental Economics and Natural Resources</b> <a href="#">↗</a>	Tiago Domingos	MEAmbi, MinGA	6	Fall – Q1
<b>Environmental Management System</b> <a href="#">↗</a>	Manuel Pinheiro	MEAmbi, MinGA, MinEG	6	Fall - Q2
<b>Humanitarian Engineering</b> <a href="#">↗</a>	Edgar Fernandes, Francisco Lemos, José Saldanha Matos, Maria Lemos	MEQ, MinEH	6	Fall – Q1
<b>Hydropower</b> <a href="#">↗</a>	Helena Ramos	MEGE, MinPER	6	Fall - Q1+Q2
<b>Industrial Ecology</b> <a href="#">↗</a>	Paulo Ferrão	MEMec, MEGIE, MinGA	6	Fall - Q2
<b>Offshore Wind Energy</b> <a href="#">↗</a>	Ricardo Balbino Pereira	MEGE	6	Fall - Q1+Q2 Spring - Q3 + Q4
<b>Photovoltaic Solar Energy</b> <a href="#">↗</a>	Katharina Lorenz	MEFT, MEGE	6	Fall - Q2
<b>Seminars on Innovation and Sustainable Development</b> <a href="#">↗</a>	Miguel Amaral	MEQ, MEGE, MEGIE, MEGI, MA	6	Fall - Q1+Q2
<b>Solar Thermal Energy</b> <a href="#">↗</a>	Carlos Augusto Silva, Luís Filipe Mendes	MEFT, MEGE	6	Fall – Q1
<b>Sustainable Development: Quantitative Foundations</b> <a href="#">↗</a>	Tiago Domingos	MEGIE, MEGE, MinBPTS, MinI4.0S, MinEG	6	Fall - Q2
<b>Waste-to-Energy</b> <a href="#">↗</a>	Edgar Fernandes, Francisco Lemos, Maria Amélia Lemos	MEAmbi, MEGE, MEGIE, MEQ, MinEH	6	Fall - Q2
<b>Wind Energy</b> <a href="#">↗</a>	Luís Gato	MEGE, MinPER	6	Fall - Q1+Q2

<b>Big History and Sustainability</b> <a href="#">↗</a>	Tiago Domingos	MEAmbi, MEGIE, MinBPTS	6	Spring – Q3
<b>Data Analytics for Smart-Grids</b> <a href="#">↗</a>	Pedro Manuel Carvalho	MECD, MEEC, MinEF	6	Spring – Q3
<b>Energy Services</b> <a href="#">↗</a>	Carlos Augusto Silva, Luís Filipe Mendes	MEFT, MEGE	6	Spring – Q3
<b>Geoenergy Exploration and Production</b> <a href="#">↗</a>	Rui Jorge Baptista	LEMRE, MEAmbi, MEGE	6	Spring – Q3
<b>Integrated Electrical Systems of Solar Photovoltaic Technology</b> <a href="#">↗</a>	Paulo José Branco	MEEC, MinPER	6	Spring – Q3
<b>Installations and Intelligent Buildings</b> <a href="#">↗</a>	Duarte Sousa	LEEC, MEEC, MEGE	6	Spring – Q4
<b>Marine Current &amp; Tidal Energy</b> <a href="#">↗</a>	João Carlos Henriques	MEGE	6	Spring - Q3 + Q4
<b>Offshore Wind Energy (offered in semester 1 and 2)</b> <a href="#">↗</a>	Ricardo Balbino Pereira	MEGE	6	Spring - Q3 + Q4
<b>Pump and Hydro Power Systems</b> <a href="#">↗</a>	Dídia Covas	MEGE	6	Spring - Q3 + Q4
<b>Renewable Energies</b> <a href="#">↗</a>	Luís Gato	MEMec, MEGE, MinPER	6	Spring – Q4
<b>Renewable Sources and Distributed Power Production</b> <a href="#">↗</a>	Rui Castro	MEEC, MEGE, MEGIE, MinEF	6	Spring – Q3
<b>Sanitary Engineering</b> <a href="#">↗</a>	José Saldanha Matos	MEAmbi, MEC, MinEH	6	Spring - Q3 + Q4
<b>Sustainable Fuels</b> <a href="#">↗</a>	Edgar Fernandes, Francisco Lemos, Maria Amélia Lemos	MEQ, MERE, MEGE, MEAmbi, MinEH	6	Spring – Q3
<b>Topics on Batteries</b> <a href="#">↗</a>	Fátima Montemor	MEAmbi, MEGE, MEQ	6	Spring – Q3
<b>Wave Energy</b> <a href="#">↗</a>	Luís Gato	MEGE	6	Spring - Q3 + Q4

**Label:**

**MinBPTS** - Minor em Big Picture Thinking para a Sustentabilidade | Minor in Big Picture Thinking for Sustainability

**MinCTQ** - Minor em Ciências e Tecnologias Quânticas | Minor in Quantum Sciences and Technology

**MinEF** - Minor in Energy for the Future

**MinEG** - Minor em Estudos Gerais | Minor in General Studies

**MinEH** – Minor em Engenharia Humanitária | Minor in Humanitarian Engineering

**MinGA** - Minor em Gestão Ambiental | Minor in Environmental Management

**MinI4.0S** - Minor em Indústria 4.0 Sustentável | Minor in Sustainable 4.0 Industry

**MinPER** - Minor em Produção de Eletricidade Renovável | Minor in Renewable Energy Production

**MiTI** – Minor em Tecnologias da Internet | Minor in Internet Technologies

**LEMRE** – Licenciatura em Engenharia de Minas e Recursos Energéticos | Bachelor’s in Engineering in Mining and Energy Resources

**MA** – Mestrado Integrado em Arquitetura | Integrated Master’s in Architecture

**MEAmbi** – Mestrando em Engenharia do Ambiente | Master’s in Environmental Engineering



**MECD** – Mestrado em Engenharia e Ciência de Dados | Master's in Data Science and Engineering  
**MEEC/ LEEC** – Licenciatura/ Mestrado em Engenharia Eletrotécnica e de Computadores | Bachelor's/  
Master's in Electrical and Computer Engineering  
**MEFT** – Mestrado em Engenharia Física e Tecnológica | Master's in Engineering Physics  
**MEGE** – Mestrado em Engenharia e Gestão de Energia | Master's in Energy Engineering Management  
**MEGIE** – Mestrado em Engenharia e Gestão da Inovação e Empreendedorismo | Master's in Engineering  
and Management of Innovation and Entrepreneurship  
**MEIC-A/ T** – Mestrado em Engenharia Informática e de Computadores | Master's in Computer Science  
and Engineering – Campus Alameda/ Taguspark  
**MEMec** – Mestrado em Engenharia Mecânica | Master's in Mechanical Engineering  
**MEQ** – Mestrado em Engenharia Química | Master's in Chemical Engineering  
**MERE** - Mestrado em Engenharia e Recursos Energéticos | Master's in Energy Resources Engineering  
**METI** – Mestrado em Engenharia de Telecomunicações e Informática | Master's in Telecommunications  
and Informatics Engineering  
**MMA** – Mestrado em Matemática e Aplicações | Master's in Mathematics and Applications  
**MSIDC** – Mestrado em Segurança de Informação e Direito no Ciberespaço | Master's in Information  
Security and Cyberspace Law

\* Faculty of Law, UL

+ Naval Academy