

Energia para a Sustentabilidade

Energy for Sustainability (EfS)

Encontro EfS ♦ Empresas
Vertente Académica
DEC-FCTUC
23 de novembro de 2011



Actividade desenvolvida

- Gestão académica dos cursos perante a FCTUC e a FEUC
- Ligação ao Educational Committee MIT Portugal
- Sessões de divulgação
- Acompanhamento de questões trazidas por alunos
- Monitorização da qualidade das formações
- Atribuição de tutores aos alunos de Doutoramento, aquando do início do curso
- Organização do processo de elaboração e defesa de projectos para tese/dissertação

Cursos

- 3 cursos que se iniciaram no ano lectivo de 2008/2009:
 - Doutoramento em Sistemas Sustentáveis de Energia (programa MIT Portugal)
 - Mestrado em Energia para a Sustentabilidade
 - Curso de Especialização em Energia para a Sustentabilidade
- 26 unidades curriculares



Mestrados concluídos desde o último Encontro

(<http://www.uc.pt/efs/research/masters>)

- IAQ and Energy Audit - An evaluation on thermal comfort - **Luísa Dias**. Março 2011. Orientação: Prof. Manuel Gameiro.
- Avaliação das trocas térmicas do corpo humano sob a acção de sistemas radiativos - **Sara Francisco**. Março 2011. Orientação: Profs. Adélio Gaspar e Raimundo Silva.
- Gestão integrada de recursos energéticos – contextualização e análise - **Ana Raquel Soares**. Junho 2011. Orientação: Profs. Carlos Henggeler Antunes e Humberto Jorge.
- Integration Intelligent Transportation and GIS systems - **Parisa Ahani**. Julho 2011. Orientação: Profs. João Coutinho Rodrigues.
- Energy efficiency students behaviour - University of Coimbra case - **Lorincz Máté János**. Julho 2011. Orientação: Prof. Patrícia Pereira da Silva.
- Revisão Crítica de uma Auditoria Energética e de um Plano de Racionalização de Consumos - **Luís Guilherme Bento**. Setembro 2011. Orientação: Profs. Adélio Gaspar e José Baranda Ribeiro.





Doutoramentos em curso (Tema: Edifícios)

- Life cycle optimization model for integrated cogeneration and photovoltaic systems - **Amir Safaei** (Started: 2009. Supervisors: C. H. Antunes, F. Freire)
- Refurbishment Decision Support System (RDSS) for building renovation strategies - **Ehsan Asadi** (Started: 2009. Supervisors: M.C. Gameiro da Silva, C. Henggeler Antunes, L. Dias)
- Exergy systems analysis for high performance buildings - **Pedro Gonçalves** (Started: 2009. Supervisors: A. Gaspar, M.C. Gameiro da Silva)
- Retrofitting opportunities for buildings in historical centers: balancing energy efficiency, sustainability and comfort - **Nelson Brito** (Started: 2009. Supervisors: A. Bandeirinha, M.C. Gameiro da Silva)

Doutoramentos em curso

(Tema: Edifícios)

- Thermal energy storage control for air conditioning systems based on ground source heat pump - **Anabela Carvalho** (Started: 2010.
Supervisors: A. Traça de Almeida, A. Gaspar)
- Integrating life cycle assessment and energy building simulation to improve residential buildings' performance - **Helena Monteiro**
(Started: 2010. Supervisors: F. Freire, A. Gaspar)
- Assessment of the potential for energy savings in buildings with building management systems - **Hermano Bernardo** (Started: 2010.
Supervisors: A. Gaspar, A: Gomes Martins)



Doutoramentos em curso

(Tema: Edifícios)

- Electric Storage on Zero Energy Houses: Why and How? - **João Santos** (Started: 2010. Supervisor: A. Traça de Almeida)
- Comparison of Building Design Scenarios Through Performance Simulation and Optimization Techniques - **Eugénio Rodrigues** (Started: 2010. Supervisors: A. Gaspar, J. Hensen)
- A Simulation Tool for Building Energy Efficiency - Variable Refrigerant Flow (VRF) - **Nilton Oliveira** (Started: 2010. Supervisor: A. Gaspar)
- Prefab dwellings: an energetic, economic and environmental analysis - **Vanessa Tavares** (Started: 2010. Supervisor: F. Freire)



Doutoramentos em curso

(Tema: Edifícios / Energy Box)

- Local Demand-Responsive Energy Management Algorithms – Energy Box - **Ana Soares** (Started: 2011. Supervisor: C.H. Antunes, A. Gomes)
- Energy Box - development and implementation of a demand-responsive energy management system - **Andreia Carreiro** (Started: 2011. Supervisor: C.H. Antunes, H. Jorge)
- Energy Box - Interaction with buildings and systems - **Fernando Melo** (Started: 2011. Supervisor: H. Jorge)
- Modelling end-use energy behaviour change in buildings towards energy efficiency - **Marta Lopes** (Started: 2011. Supervisor: C.H. Antunes, N. Martins)



Doutoramentos em curso

(Tema: Bioenergia)

- An integrated assessment methodology applied to the Brazilian bioethanol case - **Ariovaldo Carvalho** (Started: 2009. Supervisors: C. Henggeler Antunes, F. Freire)
- Environmental sustainable assessment of bioenergy: A life cycle multi-criteria decision-support approach - **Érica Castanheira** (Started: 2009. Supervisor: F. Freire)
- Large-scale Microalgae cultivation for Biofuel production: an economical approach - **Lauro Ribeiro** (Started: 2010. Supervisor: P. Pereira da Silva)



Doutoramentos em curso

(Tema: Mobilidade sustentável)

- Pre-compression Cycle application, study and sustainability analysis
- **Ricardo Abrantes** (Started: 2010. Supervisor: M.C. Gameiro da Silva)
- The role of commuting in urban sprawling - **João Ferreira** (Started: 2011. Supervisor: P. Ramos, E. Barata, L. Cruz)
- Smart Grid Control Strategies for Efficient Integration of Plug-in Electric Vehicles - **Nuno Melo** (Started: 2011. Supervisor: A.T. Almeida)
- A Fleet-Based LCA Framework Incorporating Consequential Modeling: Assessing electric-vehicle systems - **Rita Garcia** (Started: 2011. Supervisor: F. Freire)



Doutoramentos em curso (Outros temas)

- Patterns of Innovation and Entrepreneurism in the Modern Energy Sector - **Donald Scott** (Started: 2010. Supervisors: P. Saraiva, M. Reis)
- Integration of Distributed Energy Resources in the electric power network - **Sophie Zhadeev** (Started: 2010. Supervisors: C.H. Antunes, H. Jorge)
- Urban energy monitoring by participatory sensing - **L. Castanheira** (Started: 2011. Supervisors: A.G. Martins, J.B. Gouveia)
- Co-orientação de estudantes do IST e da FEUP
 - Evaluation of the Portuguese Feed-in tariffs design
 - Strategies and Methodologies to Develop a Sustainable Data Center
 - Development of a national plan for energy efficiency



Admissões para 2010/2011

□ Doutoramento

- 164 candidatos (semelhante a 2010).
- 35 com UC como 1ª escolha
- pré-seleccionados 48 para serem contactados pelas escolas
- 15 candidatos admitidos para a UC (5 ex-alunos MESUC). 3 Bolsas MPP. 4 desistências por diferentes motivos.

□ Mestrado

- 41 iniciaram processo (47 em 2010)
- 16 candidatos matriculados (12 em 2010)

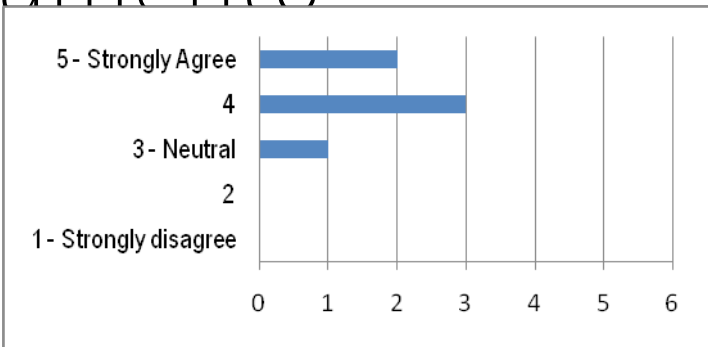
□ Curso de especialização

- 7 iniciaram processo (12 em 2010)

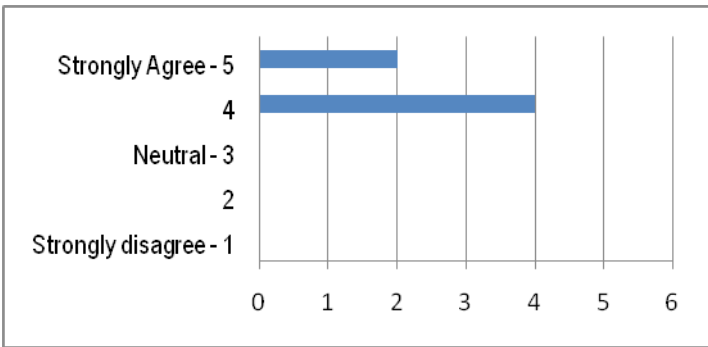


Inquérito a estudantes de doutoramento

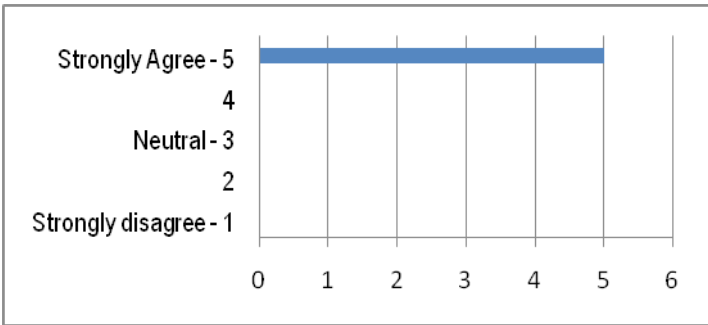
The course's general structure was very well aligned with the announced goals
Average: **4.2** (4.0 last year)



The course benefitted from excellent overall organization
Average: **4.3** (3.8)



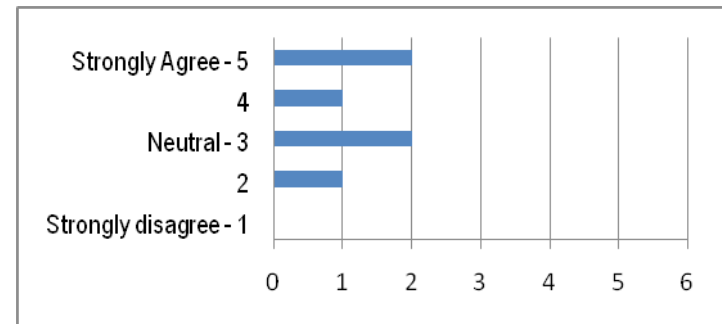
The administrative support staff was readily available and was very efficient
Average: **5.0** (4.4)



Inquérito a estudantes de doutoramento

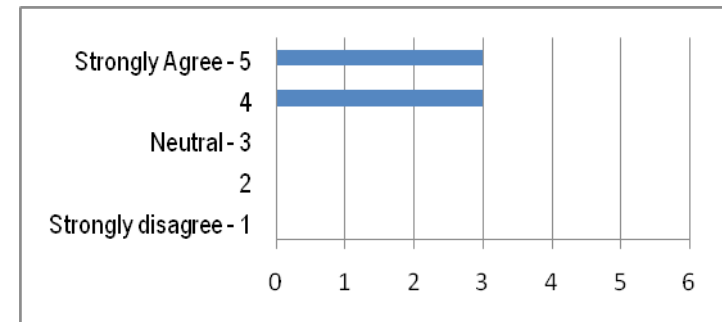
It was very easy to understand and interface with the services of the host university

Average: **3.7** (3.7)



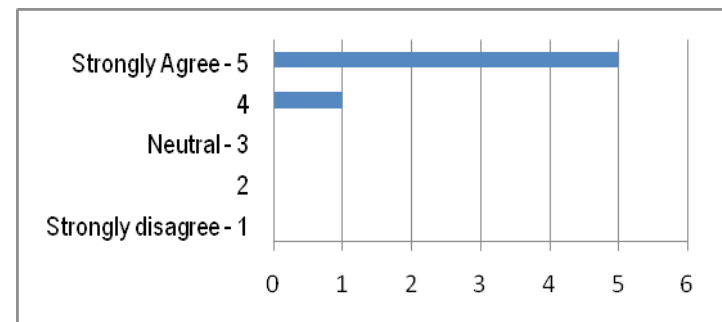
The general conditions in the class room (lighting, acoustics, furniture, etc.) were very good

Average: **4.5** (4.1)



Faculty members were very willing to work with me

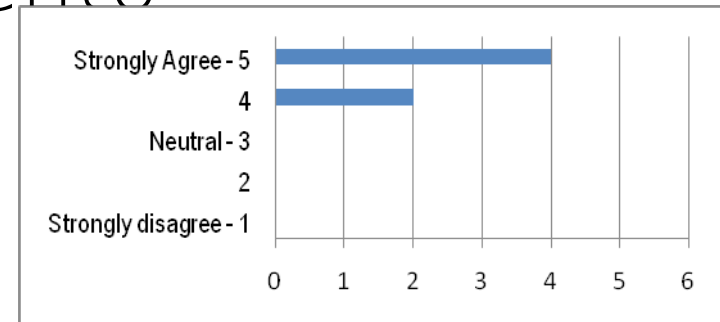
Average: **4.8** (4.3)



Inquérito a estudantes de doutoramento

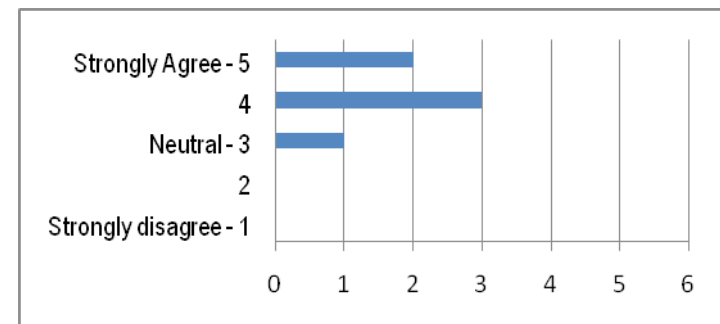
The course structure provided valuable opportunities to engage in interdisciplinary work

Average: **4.7** (3.7)



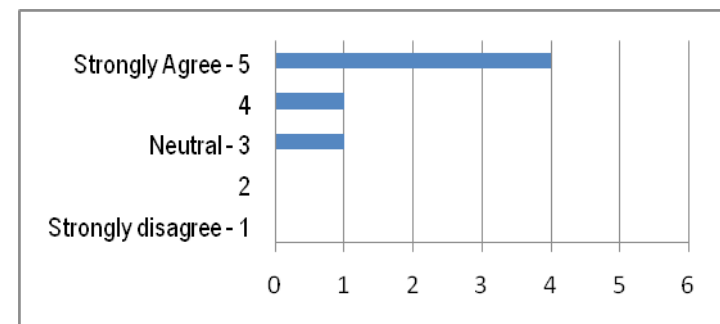
The course has very much extended my commitment to relevant social issues related to the subject

Average: **4.2** (3.7)



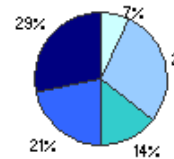
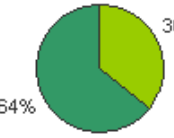
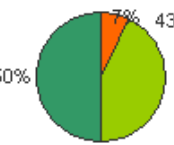
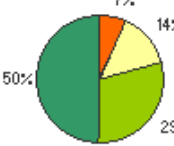
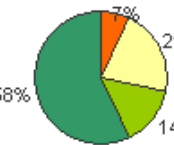
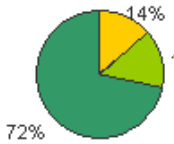
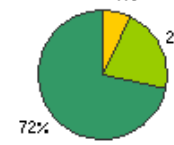
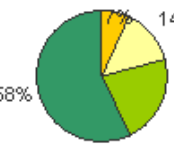
I would strongly recommend this course to other potential students

Average: **4.5** (4.0)



Inquérito a estudantes de doutoramento:

- Avaliação das disciplinas

	1- Strongly disagree	2	3 - Neutral	4	5 - Strongly Agree	Average
The module was complex and difficult	1	4	2	3	4	 3.4
This module has helped me to advance my abilities in understanding the whole of the subject matter and enabled me to apply the subject concepts to work beyond the class room				5	9	 4.6
The work load of this module was appropriate to the contents given	1			6	7	 4.3
Please evaluate the overall quality of teaching	1		2	4	7	 4.1
The teaching methods and support material (slides, articles and information on website) were fully appropriate in achieving the course learning goals	1		3	2	8	 4.1
The evaluation method that was used (assignments, exams, presentations, etc) was appropriate to the module objectives		2		2	10	 4.4
The professor was available outside of class in person or via email/phone and provided appropriate and timely feedback on my work		1		3	10	 4.6
Please make an overall evaluation of the module		1	2	3	8	 4.3