



*Joint European Summer School on Fuel Cell,
Electrolyser, and Battery Technologies
JESS 2020*

*Week 1 - Introductory Modules
07 – 11 September 2020*

*Hotel Amarilia,
Vouliagmeni, Athens, Greece*



sponsored by



INTRODUCTION

The increase in energy production from renewable sources creates a demand for energy storage technologies. Storage and conversion can be accomplished electrochemically: in batteries or through electrolysis and fuel cells. Therefore, these technologies are poised to play a major role in the energy supply infrastructure of the near future.

The Joint European Summer School JESS 2020 addresses these issues by offering high quality graduate level modules on selected topics of fuel cells, electrolyser, and battery technologies. This series of summer schools has been ongoing since 2004 and targets an audience of **university students** (MSc and PhD levels), and **post-doctoral researchers**. We also welcome more **experienced researchers and engineers** wishing to review these technologies and expand their general knowledge, for instance, to suit a newly acquired position or collect credits for a Continuous Professional Development (CPD) scheme. The topical content is tailored to the needs of a diverse audience: **newcomers to the field, experienced students, and young professionals** working at the forefront of fuel cell, electrolyser, and battery applications.

Week 1 (07 – 11 Sept 2020) offers three introductory modules to

- High temperature fuel cells and electrolysers (SOFC and SOE),
- Low temperature fuel cells and electrolysers (PEM and alkaline),
- Battery technology.

During the first week of Summer School, the main focus will be on the scientific and technological aspects. Starting from the fundamental principles of electrochemistry and thermodynamics, the entire spectrum of materials, design and balance of plant will be covered both from a scientific and an engineering point of view. In addition to the lectures, the participants will be asked to join in student projects where the content of the lectures is applied to a case study to be presented at the end of the week.

These modules are accredited at the three universities organising the Summer School and each carry 3 ECTS points (see below).

The following week (Week 2) will offer the Modelling Master Class, and modules on Fuel Cell Vehicles, Business Development and Innovation, and Hydrogen Safety for more advanced students (please refer to the separate programme). The two weeks are conducted independently of each other and students can choose the modules most appropriate to their studies.

NETWORKING WITH EXPERTS IN THE FIELD

The school draws on the knowledge and expertise of a carefully selected group of lecturers currently working at the leading edge of fuel cell, hydrogen, and battery research and development in Europe and associated to universities, national research centres, and industry.

Informal networking is a key element of science and scientific work in general. JESS offers ample opportunity for networking with peers and seasoned scientists. Students will be asked to give a short introduction to themselves and briefly present the research work they are doing (or expect to be doing).

CERTIFICATE OF ATTENDANCE

A Certificate of Attendance will be issued to all students of JESS. This Certificate of Attendance can be used for acquiring CPD points. The modules are accredited at the Technical University of Denmark and the universities of Aachen and Birmingham. On taking the optional final exam of their respective module, students can be attributed 3 ECTS points (10 credits in the UK system) for use in their studies.

ORGANISING COMMITTEE

Prof Rüdiger-A. Eichel (Forschungszentrum Jülich, Germany)

Prof Jens Oluf Jensen (DTU Energy Conversion, Denmark)

Prof Robert Steinberger-Wilckens (U Birmingham, United Kingdom)

LECTURERS

The following distinguished lecturers have already confirmed their participation in JESS 2019:

Jens Oluf Jensen	Technical University of Denmark
Robert Steinberger-Wilckens	University of Birmingham, UK
Rüdiger-A. Eichel	Research Centre Jülich, Germany
Hans Kungl	Research Centre Jülich, Germany
Ico Vinke	Research Centre Jülich, Germany
Anke Hagen	Technical University of Denmark
Artur Majewski	University of Birmingham, UK
Karin Kleiner	University of Münster, Germany
Sebastien Martinet	CEA, France
Shangfeng Du	University of Birmingham, UK
Lars Nilausen Cleemann	Technical University of Denmark
Marcelo Carmo	Research Centre Jülich, Germany
Oliver Posdziech	SunFire, Germany

You can find brief CV's of the lecturers, programme updates, and information on past events on the JESS web site: <http://www.jess-summerschool.eu>

The current status of the programme with the general lectures for all participants and the specialised talks has been included in this brochure.

LOCATION & VENUE

Athens is the capital and largest city of Greece. Athens dominates the Attica region and is one of the world's oldest cities, with its recorded history spanning around 3,400 years. The heritage of the classical era is still evident in the city, represented by ancient monuments and works of art, the most famous of all being the Parthenon, considered a key landmark of early Western civilisation. The city also retains Roman and Byzantine monuments, as well as a smaller number of Ottoman monuments. It is home to two UNESCO World Heritage Sites, the Acropolis of Athens and the medieval Daphni Monastery. Landmarks of the modern era, dating back to the establishment of Athens as the capital of the independent Greek state in 1834, include the Hellenic Parliament (19th century) and the Athens Trilogy, consisting of the National Library of Greece, the Athens University and the Academy of Athens.

The hotel hosting the school is located only steps away from a sandy beach in the Vouliagmeni area, 17 km from Athens city centre and 19 km from Athens international airport. All rooms have individual controlled A/C, free WiFi internet access, hairdryer, mini fridge, LCD TV and DVD player. More details can be found at <http://www.amarilia.gr/>.

HOW TO REGISTER

To register, fill in one of the forms attached at the end of this document, scan, and send to the e-mail addresses on the form. Or follow the registration links on the web site

<http://www.jess-summerschool.eu/JESS-2020>

The final deadline for registration is **15 August 2020**.

PARTICIPATION FEE

The registration fee is 1.485,- €/module and covers tuition fees, and accommodation in single room from Sunday 06 to Saturday 12 Sept. 2020. This includes full board (all meals and coffee breaks), the drinks reception, end-of-week banquet, and excursion. A tourist tax payment of €3 per night will be due at the hotel directly (not included in fee).

Double room occupancy is charged at 1.285,- €/module and person. Accompanying persons sharing a double room with a participant and not taking part in the lectures are charged at 620 € for the 6-day stay (including all meals and events).

All prices include Greek V.A.T.

Participants wishing to arrive early or stay longer should make their [own arrangements](#) with our booking partner, Panhellas Tourism & Congress (see below). They can offer special rates for additional nights.

COVID-19 - As you might expect, we have a special clause covering the Pandemic here:

If – for whatever reason (no flights, quarantine on entry of Greece, not being allowed to hold meetings of more than 20 persons etc.) - we are not able to or it is unreasonable to conduct JESS 2020 in person at the hotel, we will convert the event into online live teaching. You will receive all tuition and content, minus the in-person contact, the drinks and the food. Bad, but today considered relatively unlikely..

Evidently, for this the registration fee will be considerably reduced. Since we do not yet 100% know the circumstances, we reserve the right to convert the meeting at our discretion. We will refund you the difference to the modified fee immediately after JESS 2020.

Upon taking the exam (online and by Zoom interview) you will receive the ECTS certificate.

CORRESPONDENCE

For issues concerning registration and payment please contact Ms Manuela Drape-Stathoglou at Panhellas Tourism & Congress:

Mail to: manuela@panhellas.gr, Tel: +30 2810 300847.

She is also the contact person for any issues relating to the hotel, booking additional nights, and for questions about meals and the excursion.

If you have any [dietary requirements](#) with respect to food choice or food allergies, please contact Mrs. Drape in due time before the Summer School.

Lecturer information and arrangements - r.steinbergerwilckens@bham.ac.uk

Student and general information - J.C.Hooper@bham.ac.uk, Phone +44 121 414 5275.

CANCELLATION POLICY

To cancel your registration with JESS, send an email stating your intent to:

manuela@panhellas.gr

Refunds will be subject to a cancellation fee. If your request arrives by 15 August 2020, the registration fee will be refunded after the school applying a cancellation fee of 350,00 € off the processed registration fee.

No reimbursement will be made for cancellations received after 15 August 2020.

LIABILITY

The school secretariat and organisers cannot accept liability for personal accidents, loss of or damage to private property of participants and/or accompanying persons, either during, or directly arising from the JESS 2020. Participants should make their own arrangements with respect to health and travel insurance.

Reaching Amarilia Hotel from Athens international airport 'Eleftherios Venizelos'

By bus and/or/ metro

There is a bus service X96 from the arrivals terminal in Athens International Airport (Eleftherios Venizelos). The trip to the closest bus station to Amarilia Hotel (named 'Pegadakia') takes approx. 35-40 minutes and the cost is ~ € 5,00. From the bus station 'Pegadakia' you turn left onto the main avenue and walk 10 minutes before you turn right off the avenue into street Ag. Nikolaou and arrive at Amarilia Hotel, on the left side after 100 m.

You can also take the metro from the airport (blue line), change at 'Syntagma' to the red line to terminus 'Helleniko'. From there you can take a bus no. 122 to the stop 'Ag. Nikolaos' on the avenue close to the hotel. Walk back from the bus stop for about 20 m and turn left into Ag. Nikolaou. Or take a taxi from 'Helleniko' – about 5 to 10 minutes ride.

By car

You drive on the highway until the KOROPI - MARKOPOULO sign and you exit to the left. Then you follow the signs to GLYFADA and drive along the Vari - Koropi Avenue at the end of which there is a sign VOULIAGMENI where you turn left. After 300m, you reach a traffic light; you turn right in the small street 15m after the traffic lights, then right in the first street and then right to Agiou Nikolaou street. This is VOULIAGMENI area and it is where our hotel is located. The distance from the Airport is 19km (20 minutes driving distance).

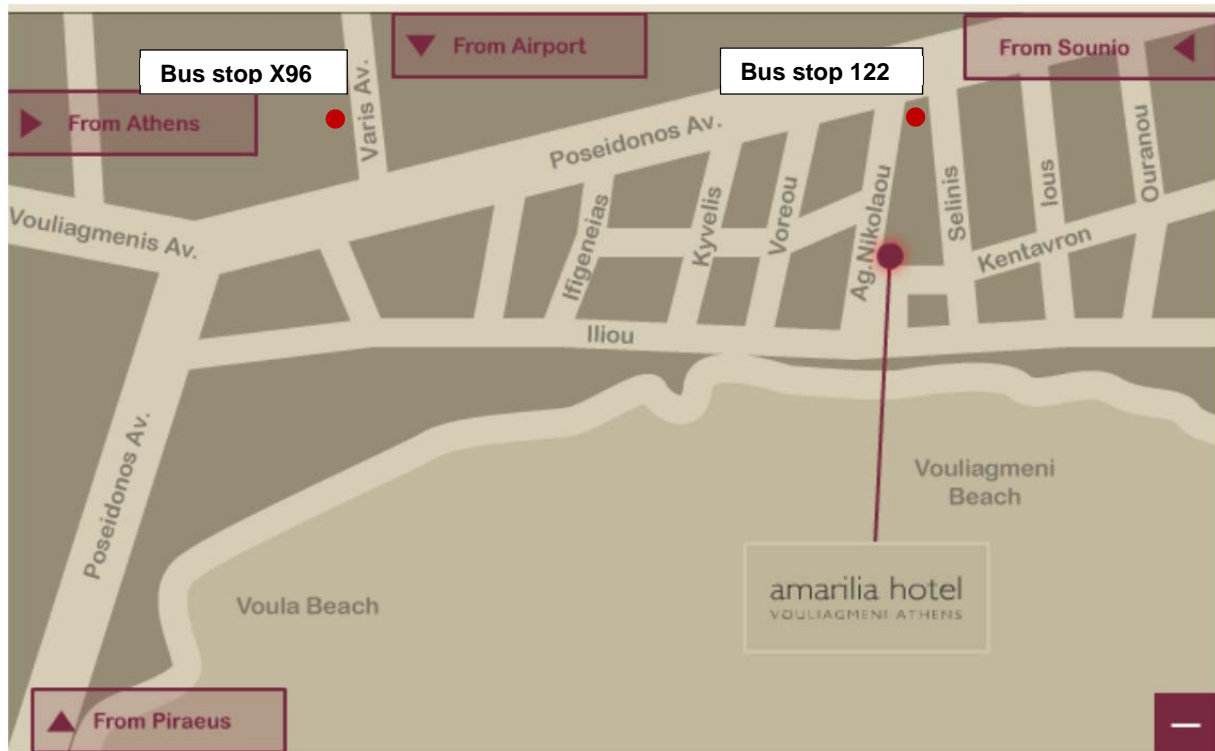
By taxi

Either take one of the taxis from the airport or pre-book a taxi from Panhellas mail: manuela@panhellas.gr, Tel: +30 2810 300847.

Both will cost around € 50,00 (one way). This fee is not included in the registration fee and has to be paid separately.

Manuela Drape-Stathoglou can arrange for shared taxis, depending on when participants arrive. Please contact her in case you want to use this option.

The full address of the hotel is: Hotel Amarilia, 13 Agiou Nikolaou, 16671 Vouliagmeni, Greece.



**Joint European Summer School for Fuel Cell, Electrolyser and
Battery Technologies – JESS 2020, WEEK 1**

Hotel Amarilia, Athens - Greece
07.-11.09.2020

Title				
Surname/Family Name/Last Name				
Name				
Gender	Male	<input type="checkbox"/>	Female	<input type="checkbox"/>
University/Institute/Company Name				
Street				
Postal Code				
Town / City				
Country				
Vat Nr of University/Institute (if applicable)				
Phone				
E-mail				
Athens arrival date and time				
Athens departure date and time				
Remarks/Special requested				

I would like to sign up for the following module:

(You are allowed to register only for 1 Module, but you may change your course during the summer school and we are flexible about visiting lectures)

<input type="checkbox"/>	Solid Oxide Fuel Cells & Electrolysers
<input type="checkbox"/>	Low Temperature Fuel Cells & Electrolyser
<input type="checkbox"/>	Battery Technology

REGISTRATION FEES

		Rate in Euro per person
In Single occupancy		Euro 1485,00
In Double occupancy		Euro 1285,00 per person

In case of accommodation in a double room,
we need to know the name of the 2nd person, sharing the room

(*) An additional 'hotel tax' payment of €3 per night will be due to the hotel on check-out.

Accompanying persons sharing a double room with a participant and **not taking part in the lectures** are charged at 620 € for the 6-day stay (including all meals, events and the excursion).

Supplement for additional overnights: Before, after or between the school
Single room: Euro 90,00 per night (only with breakfast)
Double room: Euro 120,00 per night (only with breakfast)

Please book _____ additional overnight/s for the period
from _____ to _____ at Hotel _____

Supplement for private taxi transfer:

from Athens Airport to Amabilia Hotel or vice versa

for the rate of **Euro 57,00 per taxi per way** (max. 3 persons)

In case of arrivals or departure between 22:00-08:00, there will be a night supplement of Euro 15,00

Private Transfer Yes No

Date: _____ Flight Number: _____ Arrival Time: _____

Date: _____ Flight Number: _____ Departure Time: _____

Special Notes: _____

DEADLINE FOR REGISTRATIONS: 15.08.2020

TOTAL AMOUNT FOR ALL SERVICES: EURO _____

Payment by:

(PAYMENT MUST BE ARRANGED WITHIN 10 DAYS FROM THE DAY OF THE REGISTRATION. IF WE HAVE NOT RECEIVED ANY NEWS OR PAYMENT FROM THE APPLICANT, WE WILL PROCEED WITH THE CANCELLATION OF THE REGISTRATION)

A. Bank Deposit

PIRAEUS BANK
N.ERYTHREA – ATHENS
ACCOUNT NR.: 6728 – 113712 – 215 (PANHELLAS S.A.)
SWIFT – BIC: PIRBGRAA
IBAN: GR97 0171 7280 0067 2811 3712215

Account name – Panhellas S.A

Please do not forget to mention:

07.-11.09.2020 - JESS 2020 (1ST WEEK) – Name of the participant

B. Credit Card: (+3,5 % of the final amount)

I authorize Panhellas S.A. to collect the amount of Euro _____ from my credit card

VISA MASTER

Card no : _____

Exp. Date _____

Last three digits of the number at the backside of the card _____

Cardholder's Name _____

Date _____

In case of cancellation until 15.08.2020, a 3,5% bank charge will be granted and the rest of the amount will be reimbursed.

Please sent the registration to:

JESS 2020 – Secretary - Manuela Drape Stathoglou Manuela@panhellas.gr