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# EPIC Lecture Series 2017



## Introduction, and organization logistics

26<sup>th</sup> October 2017  
CDTI, Madrid (Spain)

Jorge Lopez Reig



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# EPIC Lecture Series 2017



***Welcome you all in Madrid!***  
***Welcome to Spain!***





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# Space Electric Propulsion is cool !!





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# EPIC Lecture Series objectives



EPIC Lecture Series is an important **EDUCATION** activity of the Horizon 2020 Electric Propulsion SRC activities funded by the EU.

Its objective is to provide science and engineering university students (bachelor, master, PhD) with a selection of lectures on Space Electric Propulsion, from the basic technology and concepts to the latest developments.

The EPIC Lecture Series 2017 is organized by: **EPIC** and The University Carlos III Madrid (**UC3M**), also with the support of the Polytechnic University of Madrid (**UPM**).





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# EPIC Lecture Series objectives



This edition of the EPIC Lecture Series will cover different subjects such as: basic electric propulsion physics and technology, electric propulsion subsystem elements, relevant physical models, current developments and technological challenges, experimental and measurement techniques, and examples of past, ongoing and future missions using electric propulsion.



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# EPIC Lecture Series objectives



EPIC Workshop 2017 guest invited Lecturers are:

- José GONZÁLEZ DEL AMO, **ESA**: Electric propulsion in space missions
- Vincent JACOD, **AIRBUS DS**: All-electric-propulsion satellites
- Javier PALENCIA, **CRISA**: Electronics for Electric Propulsion
- Luis CONDE, ETSIA – **UPM**: Multiprobe plasma flow diagnostics for space propulsion: a practical approach
- Jaime PEREZ LUNA, **QINETIQ Ltd.**: Gridded Ion Engines  
Gridded
- Eduardo AHEDO, **UC3M**: Hall Effect Thrusters
- Denis PACKAN, **ONERA**: RF plasma sources for electric propulsion
- Mario MERINO, **UC3M**: Magnetic nozzles for electric propulsion





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# EPIC Lecture Series objectives



## Why Electric Propulsion?

Space Electric Propulsion is a strategic space technology, and finally we are living a revolution with the use of electric propulsion in space. The advantages of these technologies with respect to classical chemical propulsion are a much **higher specific impulse (Isp)**, which implies a significant saving in propellant mass and associated costs, and a great spacecraft controllability, due to the possibility of generating very **low thrust** forces accurately during much longer times.



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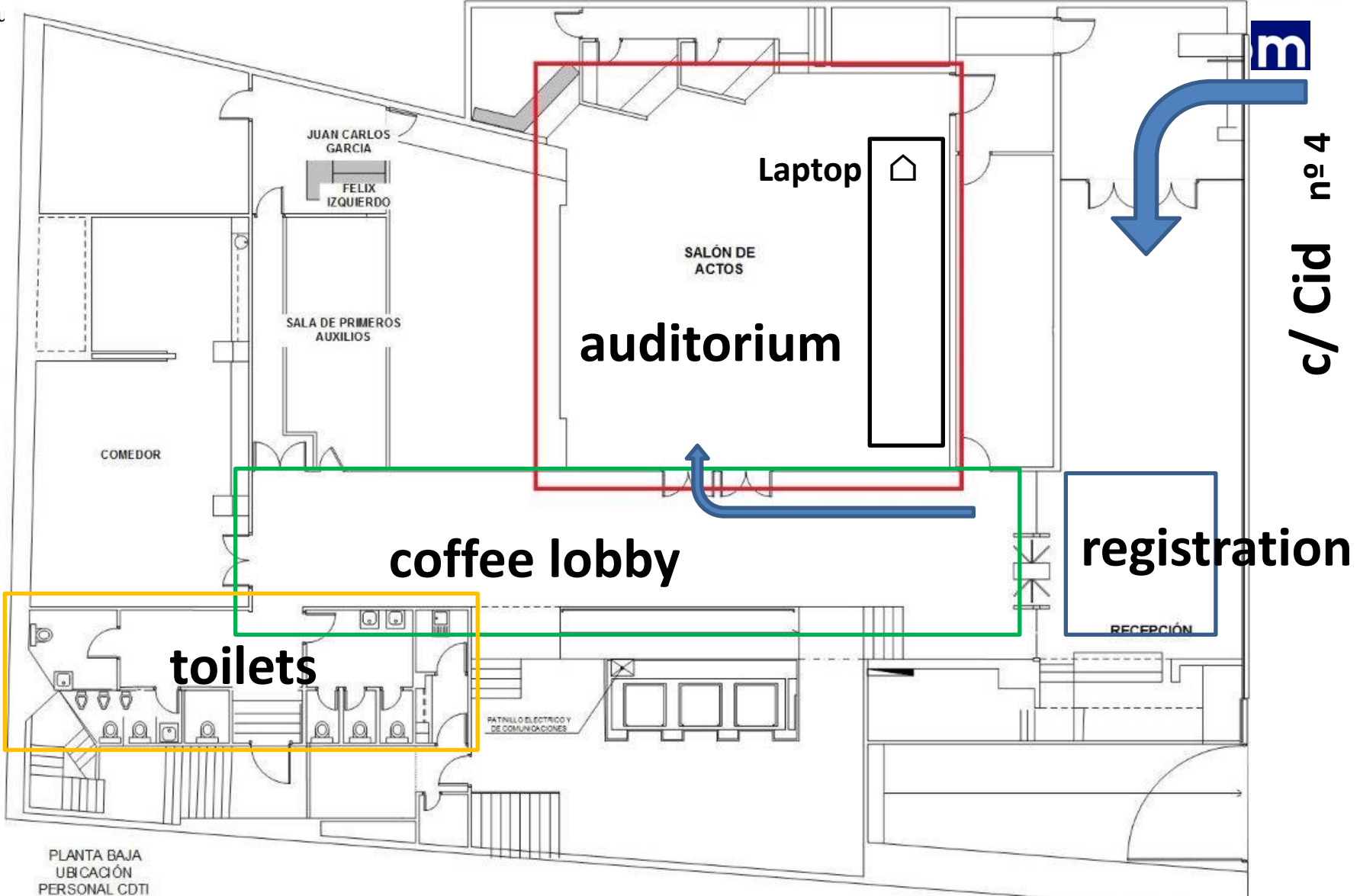
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# EPIC Lecture Series Venue





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# EPIC Lecture Series Venue



- Venue: CDTI main auditorium
- First 2 rows of seats reserved for Lecturers speakers, chairmans, EC, REA and EPIC PSA Team.
- All sessions will start **ON TIME**
- Coffee breaks will be provided, but lunch is own your own.
- Please keep the bath during lunch break but return it when leaving.
- Attendance certificates will be send to the attendees.





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# EPIC Lecture Series presentations & videos



They will be available on our EPIC web  
[epic-src.eu/](http://epic-src.eu/)

Follow us on Twitter

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# Please, mute or turn off your mobile phone!

## Many thanks!!

