



# Gerard Laguna Benet

## Dades personals-contacte / Datos personales-contacto / Personal information-contact

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**Gerard Laguna Benet**

**Titularitat:** Professor associat / Profesor asociado / Adjunct lecturer

**Àrea:** Enginyeria i física / Ingeniería i física / Engineering and physics

**Departament:** Química, Física, Ciències Ambientals i del Sòl / Química, Física, Ciencias Ambientales y del Suelo / Chemistry, Physics, Environmental and Soil Sciences

**Despatx/Despacho/Office:** Escola Politècnica Superior / Escuela Politécnica Superior/ Polytechnic Superior  
Campus de Cappont. Edifici CREA. Despatx 0.13-14 / Campus de Cappont. Edificio CREA. Despacho 0.13-14 / Campus of Cappont. CREA Building. C

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**Telèfon:** +34 973 00 35 80

**Code ORCID:** <https://orcid.org/0000-0002-7514-9243>  
<https://orcid.org/0000-0002-7514>

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## Formació acadèmica / Formación académica / Academic training

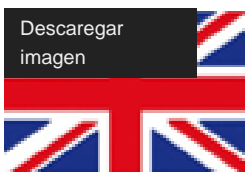
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- Grau en Enginyeria de l'Energia
- Màster en Industrials
- Doctorat en Enginyeria

Descargar imagen

- Grado en Ingeniería de la Energía
- Master en ingeniería industrial
- Doctorado en Ingeniería

- Degree in Energy Engineering
- Master in Industrial Engineering
- PhD in Engineering



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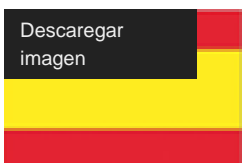
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## Experiència professional / Experiencia profesional / Professional experience



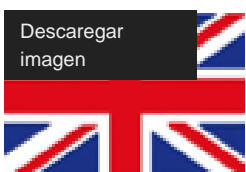
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Tècnic de laborator



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Técnico de Laboratorio



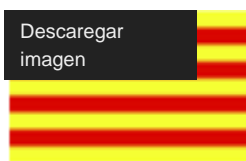
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Laboratory technician

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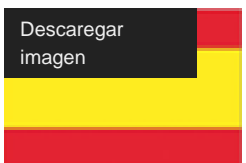
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## Docència / Docencia / Teaching



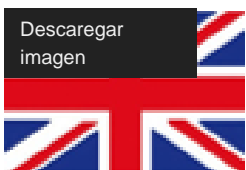
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- Tronc comú de les enginyeries industrials
- Grau en Arquitectura Tècnica i Edificació
- Grau en Enginyeria Mecànica
- Grau en Enginyeria de l'Energia i Sostenibilitat
  - Grau en Enginyeria Electrònica Industrial i Automàtica



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- Parte común de las ingenierías industriales
- Grado en Arquitectura Técnica y Edificación
- Grado en Ingeniería Mecánica
- Grado en Ingeniería de la Energía y Sostenibilidad
- Grado en Ingeniería Electrónica Industrial y Automática



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- Common part of industrial engineering
- Degree in Technical Architecture and Building
- Degree in Mechanical Engineering
- Degree in Energy Engineering and Sustainability
- Degree in Industrial Electronic and Automatic Engineering



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## Gestió / Gestión / Management



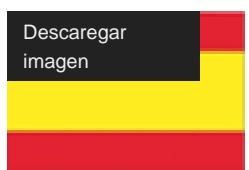
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## Recerca / Investigación / Research

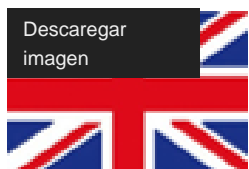
### Àmbit de recerca / Ambito de investigación / Research area



- Refrigeració de microelectrònica
- Microfluídica
- Fotovoltaica de concentració



- Refrigeracion en microelectronica
- Microfluidica
- Fotovoltaica de concentración



- Refrigeration in microelectronics
- Microfluidics
- Concentration photovoltaic

### Activitats de recerca / Actividades de investigación / Research activities

Projectes:



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- Demostració experimental i viabilitat comercial d'un sistema universal i energèticament eficient de refredament. (AGAUR – Indústria del Coneixement)

- Smart Technologies for eneRgy Efficient Active cooling in Advanced Microelectronic Systems (STREAMS) (European Commission H2020)

#### Articles:

-Impact of the self-adaptive valve behavior on an array of microfluidic cells under unsteady and non-uniform heat load distributions <https://doi.org/10.36884/jafm.12.SI.29918> [ <https://doi.org/10.36884/jafm.12.SI.29918> ]

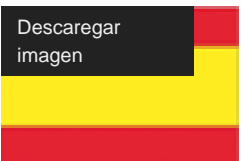
- Numerical parametric study of a hotspot-targeted microfluidic cooling array for microelectronics. <https://doi.org/10.1016/j.applthermaleng.2018.08.030> [ <https://doi.org/10.1016/j.applthermaleng.2018.08.030> ]

- Experimental and numerical study of micro-pin-fin heat sinks with variable density for increased temperature uniformity. <https://doi.org/10.1016/j.ijthermalsci.2018.06.019> [ <https://doi.org/10.1016/j.ijthermalsci.2018.06.019> ]

- Assessment of the impact of non-uniform illumination and temperature profiles on a dense array CPV receiver performance. <https://doi.org/10.1016/j.solener.2018.07.001> [ <https://doi.org/10.1016/j.solener.2018.07.001> ]

- Smoothing effect of the thermal interface material on the temperature distribution in a stepwise varying width microchannel cooling Device. <https://doi.org/10.1007/s00231-017-2045-0> [ <https://doi.org/10.1007/s00231-017-2045-0> ]

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#### Proyectos:

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#### Projects:

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