



Francisco Vera García

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Date of document: 20/04/2026

v 1.4.3

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Summary of CV

This section describes briefly a summary of your career in science, academic and research; the main scientific and technological achievements and goals in your line of research in the medium -and long- term. It also includes other important aspects or peculiarities.

Currently Full Professor in Technical University of Cartagena (UPCT), holds a degree in Industrial Engineering (1999) specialization in Energy Techniques, earned a Ph.D. in Thermo-fluid-dynamic Processes in Thermal Engines in 2004 from the Technical University of Valencia (UPV).

This CV aims to showcase the research and teaching work conducted in various subjects, all integrated within the area of Machines and Thermal Engines. From modeling charge renewal in Internal Combustion Engines (ICE) and supercharging, exhaust gas recirculation, to the study and improvement of load and speed transients in ICE from the beginning of the doctoral thesis in UPV, up to modeling heat transmission and thermohydraulics through the analysis of transient processes with multiphase mixtures in UPCT. This work has been carried out within the "Modeling of Thermal and Energy Systems" group as a professor at UPCT from 2004 to 2020 and in the MAPAE Research Group "Advanced Materials for Energy Production and Storage" from 2020 to the present. Engaged in ongoing research focused on modeling and experimentation across various energy-related areas, including internal combustion engines, two-phase flow, heat exchanger design, evaporation and condensation processes, efficient energy use, the impact of temperature on solar photovoltaic energy, water desalination through evaporation systems, applications of hydrogen as an energy carrier, energy efficiency in industry, and other topics within the energy domain.

In summary, within these research lines, there are over 40 publications in high-impact indexed journals, 8 publications in relevant but non-indexed journals, 4 monographic research publications, and more than 80 contributions to international and national conferences. The researcher has an h-index of 16 according to Scopus and h=19 according to Google Scholar, with over 900 citations in approximately 800 different documents.

Balancing this research activity, there is also a significant teaching role in subjects within the Machines and Thermal Engines Area for various academic programs, including Industrial Technical Engineering, Industrial Engineering, the Doctoral Program in Industrial Technologies, and the Official Master's in Renewable Energies and Energy Efficiency. Additionally, the individual has supervised over 60 Final Degree Projects, Master's Theses, and Bachelor's Theses in Engineering, as well as supervised 4 doctoral theses.

Regarding university management experience, the individual currently serves as the Coordinator of International Relations at UPCT (since 2020), held the position of Subdirector of International Relations at ETSII-UPCT for over 4 years (2012-2016), served as the Coordinator of the Master's in Renewable Energies for over 4 years (2016-2020), and has been the Erasmus Coordinator of the Higher Technical School of Industrial Engineering in Cartagena for over 15 years.



El presente CV intenta reflejar el trabajo investigador y docente realizado en diferentes materias todas ellas integradas en el área de Máquinas y Motores Térmicos. Desde la Modelización de la renovación de la carga en Motores de Combustión Interna Alternativos (MCIA), sobrealimentación, recirculación de los gases de escape y el estudio y mejora de los transitorios de carga y de régimen de MCIA desde el inicio de la tesis doctoral hasta el modelado de problemas de transmisión de calor y de termo hidráulica desde el análisis de procesos transitorios con mezclas multifásicas, integrado en el grupo "Modelado de Sistemas Térmicos y Energéticos" desde el año 2004 hasta el año 2020, y en el Grupo de Investigación "Materiales Avanzados para la Producción y Almacenamiento de Energía" desde el año 2020 hasta la actualidad. Se tienen 42 publicaciones en revistas indexadas de alto impacto, 8 publicaciones en revistas relevantes pero no indexadas, 4 publicaciones monográficas de investigación, más de 80 aportaciones a congresos internacionales y nacionales. Un índice $h=16$ como investigador según Scopus y $h=19$ según Google Scholar, con más de 900 citas en unos 800 documentos diferentes. Compaginando esta actividad investigadora con la docencia en asignaturas del Área de Máquinas y Motores Térmicos dentro de las titulaciones de Ingeniería Técnica Industrial, Ingeniería Industrial, Programa de Doctorado de Tecnologías Industriales, Máster Oficial en Energías Renovables y Eficiencia Energética y su correspondiente; director de más de 60 Trabajos Fin de Máster y de Grado; director de 4 tesis doctorales. En cuanto a la experiencia de gestión universitaria, actualmente Coordinador de Relaciones Internacionales de la UPCT (2020-Actualidad); más de 4 años como Subdirector de Relaciones Internacionales en la Escuela Técnica Superior de Ingeniería Industria (ETSII) (2012-2016); más de 4 años siendo Coordinador del Máster Universitario en Energías Renovables (2016-2020) y más de 15 años de Coordinador Erasmus de la ETSII.

B.1. Breve descripción del Trabajo de Fin de Grado (TFG) y puntuación obtenida

B.2. Breve descripción del Trabajo de Fin de Máster (TFM) y puntuación obtenida



General quality indicators of scientific research

This section describes briefly the main quality indicators of scientific production (periods of research activity, experience in supervising doctoral theses, total citations, articles in journals of the first quartile, H index...). It also includes other important aspects or peculiarities.

Full Professor at the Technical University of Cartagena (UPCT). Serving as the Coordinator of International Relationships (2020-2024) and the Coordinator of the Renewable Energies Master program (2016-2020). Hold a degree in Industrial Engineering (1999) specialising in Energy Techniques and earned a Ph.D. in Thermo-fluid-dynamic Processes in Thermal Engines in 2004 from the Technical University of Valencia. Founding member of the research group "Modelling of Thermal and Energy Systems" at UPCT (2004-2020) and currently affiliated with the group "Advanced materials for energy production and storage" (MAPAE). Engaged in ongoing research focused on modeling and experimentation across various energy-related areas, including internal combustion engines, two-phase flow, heat exchanger design, evaporation and condensation processes, efficient energy use, the impact of temperature on solar photovoltaic energy, water desalination through evaporation systems, applications of hydrogen as an energy carrier, energy efficiency in industry, and other topics within the energy domain.

Web of Science ResearcherID: L-9560-2014

Scopus ID: 18435055100

ORCID: <https://orcid.org/0000-0001-5408-7613>

**Francisco Vera García**

Surname(s): Vera García
Name: Francisco
ORCID: 0000-0001-5408-7613
ScopusID: 18435055100
ResearcherID: L-9560-2014
Date of birth: 01/02/1972
Gender: Male
Nationality: Spain
Country of birth: France
Contact province: Murcia
City of birth: París
Contact address: UPCT-Campus Muralla. C/ Dr. Fleming s/n
Rest of contact address: Departamento de Ingeniería Térmica y de Fluidos
Postcode: 30202
Contact country: Spain
Contact aut. region/reg.: Murcia, Región de
Contact city: Cartagena
Land line phone: (34) 968325987 - 5987
Fax: (34) 968325999 - 5999
Email: francisco.vera@upct.es
Mobile phone: (34) 652629248
Personal web page: <https://personas.upct.es/en/profile/francisco.vera>

Current professional situation**Employing entity:** Universidad Politécnica de Cartagena**Department:** Departamento de Ingeniería Térmica y de Fluidos, E.T.S.I. Industrial**Professional category:** Catedrático de Universidad **Leadership and management (Y/N):** Yes**City employing entity:** Cartagena, Murcia, Región de, Spain**Phone:** (34) 968325987 - 5987 **Fax:** (34) 968325999 - 5999 **Email:** francisco.vera@upct.es**Start date:** 15/11/2022**Type of contract:** Civil servant**Dedication regime:** Full time**Primary (UNESCO code):** 331000 - Industrial technology; 331700 - Motor vehicle technology; 332200 - Power technology**Secondary (UNESCO code):** 331300 - Mechanical Engineering and technology; 331900 - Naval technology; 332100 - Petroleum and coal technology**Tertiary (UNESCO code):** 330800 - Environmental technology and Engineering**Performed tasks:** Profesor del Área de Conocimiento de Máquinas y Motores Térmicos y responsable de varias asignaturas asociadas al área. Integrado en el grupo de investigación "Materiales avanzados para la producción y almacenamiento de energía" y anteriormente en el grupo "Modelado de Sistemas Térmicos y Energéticos" de la UPCT. Experiencia en el estudio y modelado de problemas de transmisión de calor y de termohidráulica que van desde el análisis de procesos transitorios con mezclas multifásicas al estudio de procesos transitorios con cambio de fase, optimización de sistemas energéticos, modelado de sistemas térmicos, desalación de aguas salobres y marinas con sistemas térmicos y sistemas de hidrógeno. Modelización de la Renovación de la carga en MCI. Sobrealimentación. Recirculación de los gases de escape.

Estudio y mejora de los transitorios de carga y de régimen de MCIA. - Subdirector de Relaciones Internacionales de la Escuela Técnica Superior en Ingeniería Industrial. 2012-2017 - Coordinador del Máster Oficial en Energías Renovables de la UPCT. 2018-2021 - Coordinador de Relaciones Internacionales de la UPCT. 2020-Actualidad

Identify key words: Hydrocarbon; Mechanical engineering; Naval engineering; Combustion engines; Generation and storage of electrical energy; Transport

Area of leadership and/or management activity: University

Previous positions and activities

	Employing entity	Professional category	Start date
1	Universidad Politécnica de Cartagena	Profesor Titular de Universidad	14/05/2012
2	Universidad Politécnica de Cartagena	Profesor Contratado Doctor	22/10/2007
3	Universidad Politécnica de Cartagena	PROFESOR COLABORADOR	10/09/2007
4	Universidad Politécnica de Cartagena	PROFESOR COLABORADOR	02/07/2007
5	Universidad Politécnica de Cartagena	PROFESOR COLABORADOR (Interino)	01/01/2007
6	Universidad Politécnica de Cartagena	PROFESOR AYUDANTE DOCTOR	01/05/2006
7	Universidad Politécnica de Cartagena	AYUDANTE	21/10/2004
8	Universitat Politècnica de València	TITULADO SUPERIOR	01/02/2004
9	Centro de estudios Florida Universitaria	Profesor Asociado de Universidad Privada	14/02/2002
10	Universitat Politècnica de València	TITULADO MEDIO	01/10/2002
11	Instituto CMT	Técnico Superior de Investigación	01/07/2002
12	Universitat Politècnica de València	Becario de especialización 3º ciclo	01/06/1999

1 **Employing entity:** Universidad Politécnica de Cartagena **Type of entity:** University

Department: Departamento de Ingeniería Térmica y de Fluidos, Escuela Técnica Superior de Ingeniería Industrial

City employing entity: Cartagena, Murcia, Región de, Spain

Professional category: Profesor Titular de Universidad **Leadership and management (Y/N):** Yes

Phone: (34) 968325987 - 5987

Start-End date: 14/05/2012 - 15/12/2022

Duration: 10 years - 7 months - 1 day

Type of contract: Civil servant

Performed tasks: Profesor del Área de Conocimiento de Máquinas y Motores Térmicos y responsable de varias asignaturas asociadas al área. Integrado en el grupo de investigación "Modelado de Sistemas Térmicos y Energéticos" desde mi incorporación en la UPCT. Experiencia en el estudio y modelado de problemas de transmisión de calor y de termo hidráulica que van desde el análisis de procesos transitorios con mezclas multifásicas al estudio de procesos transitorios con cambio de fase. Modelización de la Renovación de la carga en MCIA. Sobrealimentación. Recirculación de los gases de escape. Estudio y mejora de los transitorios de carga y de régimen de MCIA. - Subdirector de Relaciones Internacionales de la Escuela Técnica Superior en Ingeniería Industrial. 2012-2017 - Coordinador del Máster Oficial en Energías Renovables de la UPCT. 2018-2021. * Coordinador de Relaciones Internacionales de la UPCT 2020-2022.

Area of leadership and/or management activity: University

Applicability in teaching and/or research: Generación y almacenamiento de energía eléctrica; Ingeniería mecánica; Motores de combustión; Hidrocarburo; Transporte; Ingeniería naval



- 2** **Employing entity:** Universidad Politécnica de Cartagena **Type of entity:** University
Professional category: Profesor Contratado Doctor
Start-End date: 22/10/2007 - 13/05/2012 **Duration:** 4 years - 7 months - 7 days
- 3** **Employing entity:** Universidad Politécnica de Cartagena **Type of entity:** University
Professional category: PROFESOR COLABORADOR
Start-End date: 10/09/2007 - 21/10/2007 **Duration:** 1 month - 11 days
- 4** **Employing entity:** Universidad Politécnica de Cartagena **Type of entity:** University
Professional category: PROFESOR COLABORADOR
Start-End date: 02/07/2007 - 14/09/2007 **Duration:** 2 months - 12 days
- 5** **Employing entity:** Universidad Politécnica de Cartagena **Type of entity:** University
Professional category: PROFESOR COLABORADOR (Interino)
Start-End date: 01/01/2007 - 15/07/2007 **Duration:** 7 months - 15 days
- 6** **Employing entity:** Universidad Politécnica de Cartagena **Type of entity:** University
Professional category: PROFESOR AYUDANTE DOCTOR
Start-End date: 01/05/2006 - 31/12/2006 **Duration:** 7 months
- 7** **Employing entity:** Universidad Politécnica de Cartagena **Type of entity:** University
Professional category: AYUDANTE
Start-End date: 21/10/2004 - 30/04/2006 **Duration:** 1 year - 6 months - 10 days
- 8** **Employing entity:** Universitat Politècnica de València **Type of entity:** University
Professional category: TITULADO SUPERIOR
Start-End date: 01/02/2004 - 20/10/2004 **Duration:** 8 months - 20 days
- 9** **Employing entity:** Centro de estudios Florida Universitaria **Type of entity:** University
Professional category: Profesor Asociado de Universidad Privada
Start-End date: 14/02/2002 - 30/06/2004 **Duration:** 2 years - 4 months - 16 days
- 10** **Employing entity:** Universitat Politècnica de València **Type of entity:** University
Professional category: TITULADO MEDIO
Start-End date: 01/10/2002 - 31/01/2004 **Duration:** 1 year - 3 months - 30 days
- 11** **Employing entity:** Instituto CMT **Type of entity:** R&D Centre
Professional category: Técnico Superior de Investigación
Start-End date: 01/07/2002 - 30/09/2002 **Duration:** 3 months



12 **Employing entity:** Universitat Politècnica de València **Type of entity:** University
Professional category: Becario de especialización 3º ciclo
Start-End date: 01/06/1999 - 30/06/2002 **Duration:** 3 years - 30 days



Education

University education

1st and 2nd cycle studies and pre-Bologna degrees

- 1 University degree:** Venia Docendi como profesor de universidad en centro asociado
Name of qualification: Venia Docendi
City degree awarding entity: Valencia, Comunitat Valenciana, Spain
Degree awarding entity: Universitat Politècnica de València **Type of entity:** University
Date of qualification: 24/05/2002
- 2 University degree:** Higher degree
Name of qualification: Diploma de estudios avanzados y Suficiencia Investigadora (DEA-SI)
City degree awarding entity: Valencia, Comunitat Valenciana, Spain
Degree awarding entity: Universitat Politècnica de València **Type of entity:** University
Date of qualification: 20/04/2002
- 3 University degree:** Higher degree
Name of qualification: Ingeniero Industrial Opción Energética
City degree awarding entity: Valencia, Comunitat Valenciana, Spain
Degree awarding entity: Universitat Politècnica de València **Type of entity:** University
Date of qualification: 01/06/1999

Doctorates

Doctorate programme: Procesos termofluidodinamicos en motores de combustión interna alternativa
Degree awarding entity: Universitat Politècnica de València **Type of entity:** University
Date of degree: 15/03/2004
DEA awarding entity: Universitat Politècnica de València
Date DEA was awarded: 20/04/2002
European doctorate: No
Thesis title: EFECTO DE LA RECIRCULACIÓN DE LOS GASES DE ESCAPE EN EL PROCESO DE RENOVACIÓN DE LA CARGA EN MOTORES TURBOALIMENTADOS
Thesis director: José Manuel Luján Martínez
Obtained qualification: Sobresaliente Cum Laude (10)
Recognition of quality: Yes



Specialised, lifelong, technical, professional and refresher training (other than formal academic and healthcare studies)

- 1 Training title:** Panel de expertos 2021: Formación en el Programa Erasmus+
City awarding entity: Spain
Awarding entity: Ministerio de Universidades-SEPIE (Servicio Español para la Internacionalización de la Educación) **Type of entity:** State agency
Aims of the entity: SEPIE (Servicio Español para la Internacionalización de la Educación)
End date: 20/07/2022 **Duration in hours:** 80 hours
- 2 Training title:** LA AGENDA 2030 PARA EL DESARROLLO SOSTENIBLE: RETOS Y OPORTUNIDADES PARA LAS ADMINISTRACIONES PÚBLICAS (MODALIDAD SEMIPRESENCIAL)
Awarding entity: ESCUELA DE FORMACIÓN E INNOVACIÓN de la REGIÓN DE MURCIA **Type of entity:** Innovation and Technology Centres
End date: 31/03/2021 **Duration in hours:** 25 hours
- 3 Training title:** Huella de Carbono y Cambio Climático
Awarding entity: Bureau Veritas Business School **Type of entity:** University Centres and Structures and Associated Bodies
End date: 30/09/2020 **Duration in hours:** 30 hours
- 4 Training title:** INGLÉS online Nivel C1 [FIO19000105001]
Awarding entity: INSTITUTO NACIONAL DE ADMINISTRACION PUBLICA
End date: 04/11/2019 **Duration in hours:** 100 hours
- 5 Training title:** Formación en Panel de Expertos Evaluadores de sellos Internacionales
Awarding entity: Agencia Nacional de Evaluación de la Calidad y Acreditación **Type of entity:** Agencia de evaluación y acreditación
End date: 30/05/2019 **Duration in hours:** 50 hours
- 6 Training title:** ISE II Integrated Skills in English
Awarding entity: Trinity College London **Type of entity:** Certificadora de Títulos del Inglés
End date: 07/07/2016 **Duration in hours:** 200 hours
- 7 Training title:** B1 of the Common European Framework of Reference (CEFR)
Awarding entity: Trinity College London **Type of entity:** Certificadora de Títulos del Inglés
End date: 03/05/2011 **Duration in hours:** 50 hours
- 8 Training title:** Programación Gráfica para el Desarrollo de Aplicaciones SCADA
Awarding entity: Universidad Politécnica de Cartagena **Type of entity:** University
End date: 15/06/2010 **Duration in hours:** 60 hours
- 9 Training title:** Uso de Biocarburantes en transporte. Aspectos Técnicos y Medioambientales
Awarding entity: AGENCIA DE GESTION DE LA ENERGIA DE LA REGION DE MURCIA
End date: 25/01/2008 **Duration in hours:** 20 hours



- 10 Training title:** Mejorar la eficiencia energética de las calderas industriales
Awarding entity: AGENCIA DE GESTION DE LA ENERGIA DE LA REGION DE MURCIA
End date: 06/04/2006 **Duration in hours:** 40 hours
- 11 Training title:** Refrigeration Equipment Modelling, Design and Optimisation
Awarding entity: Universitat Politècnica de València **Type of entity:** University
End date: 29/03/2006 **Duration in hours:** 14 hours
- 12 Training title:** Boiling Heat Transfer and Boiling Equipment
Awarding entity: University of Pisa **Type of entity:** University
End date: 23/09/2005 **Duration in hours:** 40 hours
- 13 Training title:** Tecnología del Hidrogeno y Pilas de combustible
Awarding entity: COLEGIO OFICIAL DE INGENIEROS INDUSTRIALES DE MADRID
End date: 18/11/2004 **Duration in hours:** 16 hours
- 14 Training title:** Curso de formación de lenguas extranjeras FRANCÉS Nivel 2
Awarding entity: Universitat Politècnica de València **Type of entity:** University
End date: 18/05/2002 **Duration in hours:** 40 hours
- 15 Training title:** Curso de formación de lenguas extranjeras FRANCÉS Nivel 1
Awarding entity: Universitat Politècnica de València **Type of entity:** University
End date: 20/12/2001 **Duration in hours:** 40 hours
- 16 Training title:** Curso de formación de VISUAL C++
Awarding entity: Universitat Politècnica de València **Type of entity:** University
End date: 02/10/1999 **Duration in hours:** 20 hours
- 17 Training title:** Curso de INGENIERÍA HIDRÁULICA APLICADA A LOS SISTEMAS DE DISTRIBUCIÓN DE AGUA
Awarding entity: Universitat Politècnica de València **Type of entity:** University
End date: 27/10/1996 **Duration in hours:** 40 hours
- 18 Training title:** Curso de INSTALACIONES ELÉCTRICAS CON ENERGÍA SOLAR
Awarding entity: Universitat Politècnica de València **Type of entity:** University
End date: 23/05/1996 **Duration in hours:** 15 hours

Attended advanced, improvement and innovative teacher training and new technology courses and seminars focused on improving teaching

- 1 Title of course/seminar:** NORMATIVA DE PRÁCTICAS DE EMPRESA Y NUEVA HERRAMIENTA DE GESTIÓN PARA ESTAS
Goals of the course/seminar: Mejora de la gestión y el seguimiento de la formación de las prácticas externas dirigidas a estudiantes
Organising entity: Universidad Politécnica de Cartagena **Type of entity:** University
Faculty, institute or centre: VICERRECTORADO DE PROFESORADO E INNOVACION DOCENTE
Duration in hours: 3 hours
Start-End date: 30/10/2018 - 30/10/2018



- 2** **Title of course/seminar:** I Jornada de Instrumentación Virtual para la Programación de Paneles Táctiles HMIs PACs y Redes de Sensores Inalámbricos en Ingeniería
Organising entity: Universidad Politécnica de Cartagena **Type of entity:** University
Faculty, institute or centre: Departamento de Ingeniería de Alimentos y del Equipamiento Agrícola
Duration in hours: 4 hours
Start-End date: 08/05/2010 - 08/05/2010
- 3** **Title of course/seminar:** Herramientas de Innovación Docente
Goals of the course/seminar: Mejorar la docencia con nuevas herramientas de innovación
Organising entity: Universidad Politécnica de Cartagena **Type of entity:** University
Faculty, institute or centre: Vic. de Convergencia Europea y Calidad
Duration in hours: 10 hours
Start-End date: 09/02/2009 - 13/02/2009
- 4** **Title of course/seminar:** Implementación de Metodologías de Enseñanza y Aprendizaje
Goals of the course/seminar: Implementación de Metodologías de Enseñanza y Aprendizaje dentro del Espacio Europeo de Educación Superior: Talleres de Implementación de Metodologías de Enseñanza-Aprendizaje
Organising entity: Universidad Politécnica de Cartagena **Type of entity:** University
Faculty, institute or centre: Vic. de Investigación e Innovación
Duration in hours: 15 hours
Start-End date: 01/09/2008 - 03/09/2008
- 5** **Title of course/seminar:** I Jornada del Emprendedor Universitario
Goals of the course/seminar: Implementación de Metodologías de Emprendedurismo dentro de la Universidad
Organising entity: Universidad Politécnica de Cartagena **Type of entity:** University
Faculty, institute or centre: Vic. de Investigación e Innovación
Duration in hours: 3 hours
Start-End date: 09/01/2008 - 09/01/2008
- 6** **Title of course/seminar:** Introducción al Moodle: Rol Profesor-Tutor
Goals of the course/seminar: Mejorar la docencia con nuevas herramientas de innovación
Organising entity: Universidad Politécnica de Cartagena **Type of entity:** University
Faculty, institute or centre: Vic. de Convergencia Europea y Calidad
Duration in hours: 6 hours
Start-End date: 19/09/2007 - 19/09/2007
- 7** **Title of course/seminar:** Estrategias sobre la Evaluación de Competencias.
Goals of the course/seminar: Mejorar la evaluación con nuevas herramientas de innovación y de evaluación
Organising entity: Universidad Politécnica de Cartagena **Type of entity:** University
Faculty, institute or centre: Vic. de Convergencia Europea y Calidad
Duration in hours: 6 hours
Start-End date: 26/06/2007 - 26/06/2007



- 8** **Title of course/seminar:** Aprendizaje basado en Proyectos
Goals of the course/seminar: Mejorar la evaluación con nuevas herramientas de evaluación
Organising entity: Universidad Politécnica de Cartagena **Type of entity:** University
Faculty, institute or centre: Vic. de Convergencia Europea y Calidad
Duration in hours: 10 hours
Start-End date: 08/05/2007 - 09/05/2007
- 9** **Title of course/seminar:** Elaboración de guías docentes
Goals of the course/seminar: Implementación correcta de las Guías Docentes en el nuevo EEES
Organising entity: Universidad Politécnica de Cartagena **Type of entity:** University
Faculty, institute or centre: Vic. de Convergencia Europea y Calidad
Duration in hours: 4 hours
Start-End date: 21/03/2007 - 21/03/2007
- 10** **Title of course/seminar:** Planes de acción tutorial
Goals of the course/seminar: Mejora de las acciones tutoriales en campo docente
Organising entity: Universidad Politécnica de Cartagena **Type of entity:** University
Faculty, institute or centre: Vic. de Convergencia Europea y Calidad
Duration in hours: 4 hours
Start-End date: 28/02/2007 - 28/02/2007
- 11** **Title of course/seminar:** Técnicas para la comunicación Profesional
Goals of the course/seminar: Mejora de la comunicación en campo docente e investigador
Organising entity: Universidad Politécnica de Cartagena **Type of entity:** University
Faculty, institute or centre: Vic. de Convergencia Europea y Calidad
Duration in hours: 30 hours
Start-End date: 12/01/2007 - 02/02/2007
- 12** **Title of course/seminar:** NUEVOS MÉTODOS DE EVALUACIÓN
Goals of the course/seminar: Mejora de los métodos de evaluación
Organising entity: Universidad de Deusto **Type of entity:** University
Faculty, institute or centre: CENTRO FLORIDA UNIVERSITARIA
Duration in hours: 25 hours
Start-End date: 01/07/2004 - 31/07/2004
- 13** **Title of course/seminar:** GESTIÓN DEL CONOCIMIENTO, APRENDIZAJE DE POR VIDA Y HERRAMIENTAS DE FINANCIACIÓN
Goals of the course/seminar: Obtención de financiación para la investigación
Organising entity: Instituto para la Promoción de la Investigación **Type of entity:** University Research Institute
Faculty, institute or centre: Centro Florida Universitaria
Duration in hours: 25 hours
Start-End date: 02/07/2004 - 09/07/2004

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
French	B1	B1	B1	B1	B1
Catalan	C1	C1	C1	B2	B2
English	C1	C1	C1	C1	C1

Teaching experience

Experience supervising doctoral thesis and/or final year projects

- Project title:** Feasibility Study of Mechanical Vapour Compression Technology for Effluent Treatment, Brine Removal and Water Recovery Using Modelling Techniques and Experimental Validation

Type of project: Doctoral thesis

Entity: Universidad Politécnica de Cartagena **Type of entity:** University

City of entity: Cartagena, Murcia, Región de, Spain

Student: Pablo Calleja Cayón

Obtained qualification: Sobresaliente Cum Laude

Identify key words: Ecological balance; Water pollution; Engineering

Date of reading: 06/03/2026

European doctorate: Yes **Date of recognition:** 06/03/2026

Narrative Explanation: This doctoral thesis proposes a user-centred digital model for optimising mechanical vapour compression (MVC) desalination systems, with the aim of improving energy efficiency, brine management and operational sustainability. In a context of growing demand for sustainable water solutions, it proposes an accessible simulation tool that bridges the gap between academic models and the real needs of industrial operators. The work is based on the implementation of a modular model in TRNSYS, capable of simulating the thermodynamic behaviour of MVC systems under different operating configurations. Specific subroutines are incorporated for the simulation of MVC plant components, as well as for brine treatment. Validation is performed using data collected from a real experimental facility and criteria defined by real users, including sensitivity analysis and parametric optimisation. The results show that the model reproduces the energy behaviour of the system with high accuracy, allows the identification of configurations that reduce energy consumption, and facilitates the integration of renewable sources without compromising thermal stability. In addition, the user-centred approach has proven effective in improving operational decision-making at the plant. In conclusion, this thesis provides a practical and robust tool for the design and operation of efficient desalination systems, contributing to the transition towards sustainable water management models aligned with the Sustainable Development Goals and Industry 5.0.
- Project title:** Sistema de diagnóstico de motor diesel marino basado en modelo termodinámico y de inteligencia artificial

Type of project: Doctoral thesis

Entity: Universidad Politécnica de Cartagena **Type of entity:** University

City of entity: Cartagena, Murcia, Región de, Spain

Student: José Antonio Pagán Rubio

Obtained qualification: Sobresaliente Cum Laude

Date of reading: 24/07/2017
- Project title:** Estudio del proceso de ebullición en el interior de un tubo multipuerto extruido en aluminio con mini-canales de geometría triangular usando R32 y R134a como fluidos de trabajo

Type of project: Doctoral thesis



Co-director of thesis: Francisco Vera García; José Ramón García Cascales
Entity: Universidad Politécnica de Cartagena **Type of entity:** University
City of entity: Cartagena, Murcia, Región de, Spain
Student: Francisco Alberto Ramírez Rivera
Obtained qualification: Sobresaliente Cum Laude
Date of reading: 13/03/2015

4 **Project title:** Estudio de la influencia de la refrigeración con aire de forma natural e inducida en el comportamiento de instalaciones fotovoltaicas
Type of project: Doctoral thesis
Co-director of thesis: Francisco Vera García; José Ramón García Cascales
Entity: Universidad Politécnica de Cartagena **Type of entity:** University
City of entity: Cartagena, Murcia, Región de, Spain
Student: Rocío Mazón Hernández
Obtained qualification: Sobresaliente Cum Laude
Date of reading: 28/11/2014
European doctorate: Yes **Date of recognition:** 28/11/2014

5 **Project title:** Characterisation of the heat transfer and pressure drop in condensation processes within mini-channel tubes with last generation of refrigerant fluids
Type of project: Doctoral thesis
Co-director of thesis: Francisco Vera García; José Ramón García Cascales
Entity: Universidad Politécnica de Cartagena **Type of entity:** University
City of entity: Cartagena, Murcia, Región de, Spain
Student: Alejandro López Belchí
Obtained qualification: Sobresaliente Cum Laude
Date of reading: 24/10/2014
European doctorate: Yes **Date of recognition:** 24/10/2014
Quality recognition: Yes **Date of award:** 24/10/2014

Participation in innovative teaching projects

- 1** **Project title:** "REALIZACIÓN DE LAS I JORNADAS EN LAS QUE LOS ESTUDIANTES DEL MÁSTER UNIVERSITARIO EN ENERGÍAS RENOVABLES EXPONGAN LOS TRABAJOS REALIZADOS"
Type of participation: Team member
Time of working relationship: For a limited time
Funding entity: Universidad Politécnica de Cartagena **Type of entity:** University
Start-End date: 01/02/2019 - 05/10/2019 **Duration:** 9 months
- 2** **Project title:** "REALIZACIÓN DE LAS II JORNADAS EN LAS QUE LOS ESTUDIANTES DEL MÁSTER UNIVERSITARIO EN ENERGÍAS RENOVABLES EXPONGAN LOS TRABAJOS REALIZADOS"
Type of participation: Co-ordinator
Time of working relationship: For a limited time
Funding entity: Universidad Politécnica de Cartagena **Type of entity:** University
Start-End date: 01/02/2018 - 05/10/2018 **Duration:** 9 months



Most relevant contributions of your teaching CV

- Description:** Vocal Académico del Panel 27 de expertos de acreditación para el Sello EURO-ACE para 5 títulos de Grado

Identify key words: Engineering

City of activity: Málaga, Andalucía, Spain

Organising entity: Agencia Nacional de Evaluación de la Calidad y Acreditación **Type of entity:** Agencia de acreditación Nacional

End date: 01/12/2019
- Description:** Coordinador del Máster Universitario Oficial en Energías Renovables de la UPCT desde febrero 2018

Organising entity: Universidad Politécnica de Cartagena **Type of entity:** University

Scientific and technological experience

Scientific or technological activities

R&D projects funded through competitive calls of public or private entities

- Name of the project:** Tecnología de electrolizadores PEM para producción de Hidrógeno Verde

Identify key words: Engineering

Type of project: Demonstration, pilot projects, conceptual formulations and design of processes and services **Geographical area:** European Union

Degree of contribution: Researcher

Entity where project took place: Universidad Politécnica de Cartagena **Type of entity:** University

City of entity: CARTAGENA, Murcia, Región de, Spain

Name principal investigator (PI, Co-PI....): JOSÉ JAVIER LÓPEZ CASCALES; ÁNGEL MOLINA GARCÍA; FRANCISCO VERA GARCÍA

Nº of researchers: 3

Funding entity or bodies: AGENCIA ESTATAL DE INVESTIGACIÓN **Type of entity:** State agency

City funding entity: Spain

Type of participation: Team member

Name of the programme: Proyectos en Colaboración Público Privada

Code according to the funding entity: CPP2022-010018

Start-End date: 01/11/2023 - 01/11/2026 **Duration:** 3 years

Total amount: 116.167 €
- Name of the project:** LIFE. BRACKISH-GROUNDWATER DESALINATION AND DENITRIFICATION FOR SUSTAINABLE IRRIGATION: NET ZERO WASTE AND ENERGY

Type of project: Research and development, including transfer **Geographical area:** European Union



Degree of contribution: Researcher

Entity where project took place: Universidad
Politécnica de Cartagena

Type of entity: University

City of entity: Cartagena, Murcia, Región de, Spain

Name principal investigator (PI, Co-PI...): Juan Tomás García Bermejo; Ángel Molina García; Francisco Vera García; Antonio Viguera Rodríguez; María del Socorro García Cascales

Nº of researchers: 5

Name of the programme: LIFE19

Code according to the funding entity: LIFE19 ENV/ES/000447

Start-End date: 01/09/2020 - 01/07/2024

Total amount: 1.500.000 €

Sub-project amount: 350.000 €

Percentage as grant: 80

Dedication regime: Part time

3 Name of the project: Joint European Degree label in engineering - Toward a European framework for engineering education. JEDI

Identify key words: Higher education and university education; Adult education

Type of project: Demonstration, pilot projects,
conceptual formulations and design of processes and
services

Geographical area: European Union

Degree of contribution: Researcher

Entity where project took place: Universidad
Politécnica de Cartagena

Type of entity: University

City of entity: Cartagena, Murcia, Región de, Spain

Name principal investigator (PI, Co-PI...): Rafael Toledo Moreo; Luis Javier Lozano Blanco; Francisco Vera García; Beatriz Miguel Hernández

Nº of researchers: 4

Type of participation: Team member

Name of the programme: COMMISSION OF THE EUROPEAN COMMUNITIES

Code according to the funding entity: 101114604

Start-End date: 01/04/2023 - 31/03/2024

Duration: 1 year

Total amount: 6.680,01 €

Dedication regime: Part time

4 Name of the project: European University of Technology

Identify key words: Higher education and university education; Adult education

Type of project: Demonstration, pilot projects,
conceptual formulations and design of processes and
services

Geographical area: European Union

Degree of contribution: Researcher

Entity where project took place: Universidad
Politécnica de Cartagena

Type of entity: University

City of entity: Cartagena, Murcia, Región de, Spain

Nº of researchers: 10

Type of participation: Team member

Name of the programme: COMMISSION OF THE EUROPEAN COMMUNITIES

Code according to the funding entity: 101004088

Start-End date: 01/11/2020 - 31/10/2023

Duration: 3 years

Total amount: 567.140 €

Dedication regime: Part time



5 Name of the project: Pilas de combustible de HIDRÓGENO desde fuentes renovables para una logística y transporte VERDE

Identify key words: Engineering

Type of project: Demonstration, pilot projects, conceptual formulations and design of processes and services

Geographical area: European Union

Degree of contribution: Researcher

Entity where project took place: Universidad Politécnica de Cartagena

Type of entity: University

City of entity: CARTAGENA, Murcia, Región de, Spain

Name principal investigator (PI, Co-PI....): ÁNGEL MOLINA GARCÍA; JOSÉ JAVIER LÓPEZ CASCALES; FRANCISCO VERA GARCÍA; JUAN TOMÁS GARCÍA BERMEJO

Nº of researchers: 4

Funding entity or bodies:

CONSEJERÍA DE EMPRESA, INDUSTRIA Y PORTAVOCÍA

Type of entity: State agency

City funding entity: MURCIA, Murcia, Región de, Spain

Name of the programme: FEDER

Start-End date: 01/12/2020 - 30/06/2022

Duration: 1 year - 6 months

Total amount: 168.700 €

6 Name of the project: Convenio entre la UPCT, COAG-IR Y FECOAM para la creación de la Cátedra "UPCT por la Agricultura sostenible en el Campo de Cartagena"

Entity where project took place: Universidad Politécnica de Cartagena

Type of entity: University

City of entity: Cartagena, Murcia, Región de, Spain

Name principal investigator (PI, Co-PI....): JUAN JOSÉ MARTÍNEZ SÁNCHEZ

Nº of researchers: 10

Funding entity or bodies:

COAG-IR Y FECOAM

Type of entity: Associations and Groups

City funding entity: Cartagena, Murcia, Región de, Spain

Start-End date: 09/03/2019 - 09/03/2020

Total amount: 54.100 €

7 Name of the project: Instalación de una planta piloto destinada al tratamiento de salmueras procedentes de la desalobración de aguas subterráneas, con la finalidad de obtener agua dulce y sales cristalizadas

Entity where project took place: Universidad Politécnica de Cartagena

Type of entity: University

City of entity: Cartagena, Murcia, Región de, Spain

Name principal investigator (PI, Co-PI....): CAROLINA DÍAZ GARCÍA; JUAN JOSÉ MARTÍNEZ SÁNCHEZ; FRANCISCO VERA GARCÍA; JOSÉ ÁLVAREZ ROGEL; JOSÉ ANTONIO FRANCO LEEEMHUIS; SEBASTIÁN BAÑÓN ARIAS; MARÍA JOSÉ VICENTE COLOMER

Nº of researchers: 7

Funding entity or bodies:

COMUNIDAD AUTONOMA DE LA REGION DE MURCIA

City funding entity: Spain

Start-End date: 01/01/2019 - 31/12/2019

Total amount: 360.000 €



- 8** **Name of the project:** Instalación de una planta piloto destinada al tratamiento de salmueras procedentes de la desalobración de aguas subterráneas, con la finalidad de obtener agua dulce y sales cristalizadas
Entity where project took place: Universidad Politécnica de Cartagena **Type of entity:** University
City of entity: Cartagena, Murcia, Región de, Spain
Name principal investigator (PI, Co-PI....): Juan José Martínez Sánchez; FRANCISCO VERA GARCÍA; MARÍA JOSÉ VICENTE COLOMER; JOSÉ ANTONIO FRANCO LEEMHUIS; SEBASTIÁN DEL PILAR BAÑÓN ARIAS; JOSÉ ÁLVAREZ ROGEL; CAROLINA DÍAZ GARCÍA
Nº of researchers: 7
Funding entity or bodies: Comunidad Autónoma de la Región de Murcia **Type of entity:** Gobierno Autonomía
City funding entity: Murcia, Murcia, Región de, Spain
Start-End date: 29/12/2018 - 30/09/2019
Total amount: 340.000 €
- 9** **Name of the project:** Caracterización de la transmisión de calor y la caída de presión en evaporadores y condensadores compactos. 19501/PI/1
Entity where project took place: Universidad Politécnica de Cartagena **Type of entity:** University
City of entity: Cartagena, Murcia, Región de, Spain
Name principal investigator (PI, Co-PI....): José Ramón García Cascales; Francisco Vera García
Nº of researchers: 4
Start-End date: 01/07/2015 - 30/06/2017
Total amount: 28.500 €
- 10** **Name of the project:** Estudio de evaporadores y condensadores basados en tecnología de minicanales para su aplicación en equipos de refrigeración, aire acondicionado y bomba de calor estacionarios DPI2011-26771-C02-02
Entity where project took place: Universidad Politécnica de Cartagena **Type of entity:** University
City of entity: Cartagena, Murcia, Región de, Spain
Name principal investigator (PI, Co-PI....): Francisco Vera García
Nº of researchers: 5
Funding entity or bodies: Ministerio de Ciencia e Innovación. Investigación **Type of entity:** Ministerio Plan de investigación
City funding entity: Madrid, Madrid, Comunidad de, Spain
Start-End date: 01/01/2012 - 31/12/2015
Total amount: 39.000 €
- 11** **Name of the project:** Valorización del CO2 obtenido de la biometanización de deshechos para su utilización en la logística de frío. AEI-010300-2012-145
Entity where project took place: Universidad Politécnica de Cartagena **Type of entity:** University
City of entity: Cartagena, Murcia, Región de, Spain
Name principal investigator (PI, Co-PI....): José García Cascales; Francisco Vera García
Nº of researchers: 3
Funding entity or bodies: Ministerio de Industria Turismo y Comercio **Type of entity:** Ministerio de Industria y Energía
City funding entity: Madrid, Madrid, Comunidad de, Spain
Start-End date: 01/01/2013 - 01/06/2013
Total amount: 34.746 €



- 12** **Name of the project:** IX CONGRESO NACIONAL DE INGENIERÍA TERMODINÁMICA. Ref. 19680/OC/14
Entity where project took place: Universidad Politécnica de Cartagena **Type of entity:** University
City of entity: Murcia, Región de, Spain
Name principal investigator (PI, Co-PI....): J.R. García Cascales
Nº of researchers: 5
Funding entity or bodies: FUNDACIÓN SÉNECA
Start date: 03/06/2015 **Duration:** 2 days
Participating entity/entities: UPCT y UPV
Total amount: 1.200 €
- 13** **Name of the project:** Smart propellants – Propulsantes inteligentes, IPT-2011-0712-020000”
Entity where project took place: Universidad Politécnica de Cartagena **Type of entity:** University
Name principal investigator (PI, Co-PI....): J.R. García Cascales; F. Vera-García
Nº of researchers: 10
Funding entity or bodies: Ministerio de Ciencia e Innovación.
Start date: 29/04/2011 **Duration:** 4 years - 1 day
Participating entity/entities: EXPAL- UPCT
Total amount: 58.122 €
- 14** **Name of the project:** Estudio de la transferencia de calor y la caída de presión en procesos de condensación en microcanales. 08766/PI/08
Entity where project took place: Universidad Politécnica de Cartagena **Type of entity:** University
City of entity: Murcia, Región de, Spain
Name principal investigator (PI, Co-PI....): J.R. García Cascales
Nº of researchers: 5
Funding entity or bodies: Fundación Seneca. Conserjería de Economía Industria e Innovación de la
Start date: 01/01/2009 **Duration:** 1 year - 11 months - 30 days
Participating entity/entities: Universidad Politécnica de Cartagena
Total amount: 35.335,8 €
- 15** **Name of the project:** Estudio de optimización de equipos frigoríficos y de aire acondicionado para su funcionamiento con refrigerantes naturales hidrocarburos. DPI2008-06707-C02-02
Entity where project took place: Universidad Politécnica de Cartagena **Type of entity:** University
City of entity: Murcia, Región de, Spain
Name principal investigator (PI, Co-PI....): J.R. García Cascales
Nº of researchers: 4
Funding entity or bodies: MINISTERIO DE EDUCACION Y CIENCIA
City funding entity: Spain
Start date: 31/12/2008 **Duration:** 3 years



Participating entity/entities: D.I.T.F. - UPCT

Total amount: 47.553 €

16 Name of the project: Desarrollo de Modelos Avanzados para el Diseño de Equipos de Refrigeración y Aire Acondicionado. DPI2005-09262-C02-02

Entity where project took place: Universidad Politécnica de Cartagena

Type of entity: University

City of entity: Cartagena, Murcia, Región de, Spain

Name principal investigator (PI, Co-PI....): J.R. García Cascales; F.Vera García

Nº of researchers: 4

Funding entity or bodies:

MINISTERIO DE EDUCACION Y CIENCIA

City funding entity: Spain

Start date: 31/12/2005

Duration: 3 years

Participating entity/entities: UPCT y UPV

Total amount: 29.750 €

17 Name of the project: Gestión de la recirculación de gases de escape en motores Diesel turboalimentados.

Entity where project took place: Universitat Politécnica de València

Type of entity: University

City of entity: Murcia, Región de, Spain

Name principal investigator (PI, Co-PI....): F.Payri

Nº of researchers: 9

Funding entity or bodies:

Ministerio de Educación y Ciencia. D.G. Investigación

Start date: 13/12/2004

Duration: 3 years

Participating entity/entities: D.M.M.T. Instituto CMT

Total amount: 33.086 €

18 Name of the project: Modelado y Desarrollo Sistemas Eficientes de Refrigeración y Climatización. Diseño asistido por ordenador de equipos de refrigeración basados en modelos matemáticos avanzados. 00693/PPC/04

Entity where project took place: Universidad Politécnica de Cartagena

Type of entity: University

City of entity: Murcia, Región de, Spain

Name principal investigator (PI, Co-PI....): J.R. García Cascales

Nº of researchers: 4

Funding entity or bodies:

Fundación SENECA. (Conserjería de Economía

Industria e Innovación de la

Start date: 01/01/2004

Duration: 2 years - 11 months - 30 days

Participating entity/entities: Universidad Politécnica de Cartagena

Total amount: 10.900 €

19 Name of the project: Desarrollo de una plataforma de control avanzado de sistemas en motores diesel Turboalimentados.

Entity where project took place: Universitat Politécnica de València

Type of entity: University

City of entity: Comunitat Valenciana, Spain

Name principal investigator (PI, Co-PI....): F. Payri



Nº of researchers: 8

Funding entity or bodies:

Ministerio de Ciencia y Tecnología

Start date: 01/12/2003

Duration: 3 years

Participating entity/entities: D.M.M.T. Instituto CMT

Total amount: 151.300 €

20 Name of the project: Optimización del control del aire en motores diesel sobrealimentados. Análisis del problema y validación experimental

Entity where project took place: Universitat Politècnica de València

Type of entity: University

City of entity: Valencia, Comunitat Valenciana, Spain

Name principal investigator (PI, Co-PI....): F.Payri

Nº of researchers: 8

Funding entity or bodies:

Ministerio de Ciencia y Tecnología

Start date: 28/12/2001

Duration: 2 years - 11 months - 30 days

Participating entity/entities: D.M.M.T. Instituto CMT

Total amount: 136.039 €

21 Name of the project: Análisis e implantación de un sistema para la medida de parámetros y control del funcionamiento de motores diesel de automoción (P-4 COMODIN)

Entity where project took place: Universitat Politècnica de València

Type of entity: University

City of entity: Comunitat Valenciana, Spain

Name principal investigator (PI, Co-PI....): F.Payri

Nº of researchers: 8

Funding entity or bodies:

Ministerio de Ciencia y Tecnología

Start date: 30/05/2001

Duration: 2 years - 6 months

Participating entity/entities: D.M.M.T. Instituto CMT

Total amount: 55.000 €

22 Name of the project: Interdisciplinar UPV – Desarrollo de algoritmos de control multivariable para la optimización de los sistemas de renovación de la carga de motores diesel turboalimentados.

Entity where project took place: Universitat Politècnica de València

Type of entity: University

City of entity: Valencia, Comunitat Valenciana, Spain

Name principal investigator (PI, Co-PI....): F. Payri

Nº of researchers: 9

Funding entity or bodies:

Desarrollo E Innovación de la Universidad Politécnica de Valencia

Vicerrectorado Investigación

Start date: 30/05/2001

Duration: 2 years - 7 months - 1 day

Participating entity/entities: D.M.M.T. –D.I.S.C.A.

Total amount: 18.030 €

R&D non-competitive contracts, agreements or projects with public or private entities

- 1** **Name of the project:** Evaluación técnica experto OCA GLOBAL 2025
Type of project: Technical viability study **Entity where project took place:** OCA GLOBAL INNOVACIÓN Y SOSTENIBILIDAD, S.L.U.
Degree of contribution: Coordinator of total project, network or consortium
Type of entity: State agency
Name principal investigator (PI, Co-PI...): Francisco Vera García
Nº of researchers: 1
Start date: 01/10/2025 **Duration:** 1 year
Total amount: 500 €
Relevant results: Contrato 9264/25ITF Francisco Vera García. Evaluación técnica experto OCA GLOBAL. Financiador: OCA GLOBAL INNOVACIÓN Y SOSTENIBILIDAD, S.L.U. Convocatoria: (OCA GLOBAL INNOVACIÓN Y SOSTENIBILIDAD, S.L.U.) edit_calendar Duración del 24 de noviembre de 2025 al 31 de diciembre de 2050 (301 meses) Vigente 500,00 € De ámbito Nacional. Con carácter Privado. Se ha otorgado en régimen de Concesión directa. Investigadores/as Foto de Francisco Francisco Vera García Responsable
- 2** **Name of the project:** Cofinanciación de Beca FPI-Fundación Séneca (Paula Hernández Baño) PROGRAMA REGIONAL DE TALENTO INVESTIGADOR Y SU EMPLEABILIDAD (MODALIDAD B) CONVOCATORIA DE AYUDAS 2024
Degree of contribution: Coordinator of total project, network or consortium
Name principal investigator (PI, Co-PI...): Francisco Vera García
Nº of researchers: 1
Participating entity/entities: FUNDACION SENECA AGENCIA DE CIENCIA Y TECNOLOGIA DE LA REGION DE MURCIA; REGENERA LEVANTE
Start date: 01/03/2025 **Duration:** 3 years
Total amount: 6.609 €
Relevant results: Convenio Convenio 8797/25ITF-P Cofinanciación de Beca FPI-Fundación Séneca (Paula Hernández Baño) PROGRAMA REGIONAL DE TALENTO INVESTIGADOR Y SU EMPLEABILIDAD (MODALIDAD B) CONVOCATORIA DE AYUDAS 2024 Financiador: REGENERA LEVANTE, S.L. edit_calendar Duración del 01 de marzo de 2025 al 28 de febrero de 2028 (36 meses) Vigente 6.609,00 € De ámbito Autonómico. Con carácter Privado. Se ha otorgado en régimen de Concesión directa. Convocatoria: (REGENERA LEVANTE, S.L.)
- 3** **Name of the project:** Investigación aplicada a nuevos grupos electrógenos de velocidad variable y reducidas dimensiones.
Type of project: Technical viability study **Entity where project took place:** AGENCIA DE CERTIFICACIÓN ESPAÑOLA, S.L.
Degree of contribution: Coordinator of total project, network or consortium
Type of entity: State agency
Name principal investigator (PI, Co-PI...): Francisco Vera García
Nº of researchers: 1
Start date: 01/05/2023 **Duration:** 1 month
Total amount: 400 €
Relevant results: Contrato 7645/23ITF Investigación aplicada a nuevos grupos electrógenos de velocidad variable y reducidas dimensiones. Contrato Individual con Experto Técnico. Evaluador D. Francisco Vera García. Expediente nº 3945.001.23. Número de pedido genérico para la UPCT año 2023: 62490000320. Financiador: AGENCIA DE CERTIFICACIÓN ESPAÑOLA, S.L. Convocatoria: (AGENCIA DE CERTIFICACIÓN ESPAÑOLA, S.L.) date_range Duración del 09 de mayo de 2023 al 15 de mayo de 2023 (1 mes) Finalizó 400,00 € De ámbito Nacional. Con carácter Privado. Se ha otorgado en régimen de Concesión directa. Investigadores/as Francisco Vera García Responsable

**4 Name of the project:** Evaluación técnica experto ACIE 2023**Type of project:** Technical viability study**Entity where project took place:** AGENCIA DE CERTIFICACIÓN ESPAÑOLA, S.L.**Degree of contribution:** Coordinator of total project, network or consortium**Type of entity:** State agency**Name principal investigator (PI, Co-PI....):** Francisco Vera García**Nº of researchers:** 1**Start date:** 01/03/2023**Duration:** 1 year**Total amount:** 3.100 €

Relevant results: Contrato Francisco Vera García. Evaluación técnica experto ACIE Financiador: AGENCIA DE CERTIFICACIÓN ESPAÑOLA, S.L. Convocatoria: (AGENCIA DE CERTIFICACIÓN ESPAÑOLA, S.L.) edit_calendar Duración del 28 de julio de 2023 al 31 de diciembre de 2050 (329 meses) Vigente 3.100,00 € De ámbito Nacional. Con carácter Privado. Se ha otorgado en régimen de Concesión directa. Investigadores/as Foto de Francisco Francisco Vera García Responsable

5 Name of the project: Apoyo para la creación y el funcionamiento de grupos operativos de la Asociación Europea para la Innovación en materia de productividad y sostenibilidad agrícolas. Medida 16.1 del Programa de Desarrollo Rural de la Región de Murcia 2014-2020. Integración fotovoltaica en viñedos-Enovoltaics**Type of project:** Industrial research**Entity where project took place:** ASOCIACIÓN PARA LA PROMOCIÓN DE LA AGROVOLTAICA APROVOLT**Degree of contribution:** Scientific coordinator**Type of entity:** Associations and Groups

Name principal investigator (PI, Co-PI....): Javier Padilla Martínez; FRANCISCO VERA GARCÍA; Antonio Urbina Yeregui; Arantxa Aznar Samper; José Abad López; María Socorro García Cascales; Baltasar Miras Cabrera; Adela Ramos Escudero; Carlos Alberto Toledo Arias

Nº of researchers: 10**Participating entity/entities:** Universidad Politécnica de Cartagena**Type of project:** Cooperation**Start date:** 01/02/2023**Duration:** 24 months - 15 days**Total amount:** 44.990 €

Relevant results: Orden de 7 de julio de 2017, de la Consejería de Agua, Agricultura, Ganadería y Pesca, por la que se establecen las bases reguladoras para la concesión de ayudas relativas al apoyo para la creación y el funcionamiento de grupos operativos de la Asociación Europea para la Innovación en materia de productividad y sostenibilidad agrícolas, correspondientes a la medida 16.1 del Programa de Desarrollo Rural de la Región de Murcia 2014-2020. (ASOCIACIÓN PARA LA PROMOCIÓN DE LA AGROVOLTAICA APROVOLT) El proyecto desarrollará un sistema que permita la integración fotovoltaica en terrenos agrícolas dedicados a la viticultura, demostrando su viabilidad técnica y económica y posibilitando un uso dual del suelo (producción energética+producción agrícola) con un enfoque prioritario hacia la minimización del impacto sobre la producción agrícola. El impacto potencial de esta propuesta sobre el sistema energético regional es ciertamente significativo: la capacidad de potencia instalada estimada a nivel regional, que actualmente cuenta con 29.000 ha de viñedo, representa 4.900 MW, multiplicando por cuatro la actual potencia instalada en toda la Región de Murcia. La implantación masiva de esta propuesta tendrá un carácter marcadamente transformador en el binomio producción energética-producción agrícola regional, permitiendo no sólo un aumento en el porcentaje de producción de energía renovable, acercándonos de ese modo a los objetivos de desarrollo sostenible (ODS) previstos en la agenda 2030 y el Pacto Verde Europeo, sino la realización de estos objetivos sin interferir en el uso agrícola del suelo.

6 Name of the project: Cátedra Fundación REPSOL**Type of project:** Research and development, including transfer**Entity where project took place:** Fundación REPSOL**Degree of contribution:** Coordinator of total project, network or consortium



Type of entity: Business

City of entity: Cartagena, Murcia, Región de, Spain

Name principal investigator (PI, Co-PI....): Francisco Vera García

Nº of researchers: 1

Funding entity or bodies:

Fundación Repsol

Type of entity: Foundation

City funding entity: Madrid, Madrid, Comunidad de, Spain

Type of project: Cooperation

Name of the programme: Cátedra REPSOL

Start date: 20/12/2020

Duration: 1 year

Total amount: 45.000 €

Sub-project amount: 50.000 €

Identify key words: Engineering

- 7 Name of the project:** INFORME PERICIAL SOBRE FUNCIONAMIENTO TÉCNICO DE UNA INSTALACIÓN DE GENERACIÓN ELÉCTRICA MEDIANTE CALDERA DE BIOMASA PARA LA EMPRESA GLEFARAN

Type of project: Industrial research

Entity where project took place: GLEFARAN S.L.

Degree of contribution: Coordinator of total project, network or consortium

Name principal investigator (PI, Co-PI....): FRANCISCO VERA GARCÍA; LUÍS JAVIER LOZANO BLANCO

Nº of researchers: 2

Participating entity/entities: Universidad Politécnica de Cartagena

Type of project: Cooperation

Start date: 15/10/2020

Duration: 4 months - 15 days

Total amount: 6.470,59 €

- 8 Name of the project:** MEDIDAS DE EMISION DE GASES DE ESCAPE PARA MTU2000. PEDIDO: 3F40015349

Identify key words: Naval engineering; Automatization in the naval industry

Type of project: Industrial research

Entity where project took place: NAVANTIA, S.A., S.M.E.

Degree of contribution: Scientific coordinator

Name principal investigator (PI, Co-PI....): José Hernández Grau; FRANCISCO VERA GARCÍA

Nº of researchers: 2

Participating entity/entities: Universidad Politécnica de Cartagena

Type of project: Cooperation

Start date: 09/02/2020

Duration: 9 months - 15 days

Total amount: 6.233,19 €

Relevant results: Contrato 6283/201TF MEDIDAS DE EMISION DE GASES DE ESCAPE PARA MTU2000. PEDIDO: 3F40015349 Financiador: NAVANTIA, S.A., S.M.E. Convocatoria: (NAVANTIA, S.A., S.M.E.) date_range Duración del 09 de febrero de 2020 al 30 de octubre de 2020 (8 meses) Finalizó 6.233,19 € De ámbito Local. Con carácter Privado. Se ha otorgado en régimen de Concesión directa. En colaboración con otras entidades. Rol: Miembro Investigadores/as Foto de José José Hernández Grau Responsable Foto de Francisco Francisco Vera García

- 9 Name of the project:** "El objeto del presente Contrato es la realización por parte del Exp. T. del servicio de evaluación del proyecto NUEVOS SISTEMAS EGR PARA LA RECIRCULACION DE GASES DE ESCAPE EN VEHICULOS CON ALTAS PRESTACIONES con código ACIE de Expediente 814.018.19, con código UNESCO 3313 y para una certificación de tipo Certificado de seguimiento según el Real Decreto 1432/2003, de 21 de noviembre y/o la Norma UNE 166001:2006."

Degree of contribution: Coordinator of total project, network or consortium

Name principal investigator (PI, Co-PI....): Francisco Vera García



Nº of researchers: 1

Participating entity/entities: ACIE y UPCT

Funding entity or bodies:

Agencia de Certificación en Innovación Española ACIE.

Start date: 26/10/2019

Duration: 1 month - 6 days

Total amount: 726 €

10 Name of the project: "ANÁLISIS CUANTITATIVO DE ÍNDICE DE CONFORT"

Degree of contribution: Coordinator of total project, network or consortium

Name principal investigator (PI, Co-PI....): José Ramón García Cascales; Fernando Illán Gómez; Francisco Vera García; Francisco Javier Sánchez Velasco

Nº of researchers: 4

Participating entity/entities: Industrias Royal Termic - ROINTE

Funding entity or bodies:

Industrias Royal Termic- Rointe S.L.

Start date: 01/06/2019

Duration: 4 months

Total amount: 6.227,94 €

11 Name of the project: Evaluación de Contenido y Ejecución del ejercicio 2018 del proyecto 695.881 - de la empresa INFRICO, S.L., titulado "DESARROLLO DE REFRIGERADORES PARA PRODUCTOS FARMACÉUTICOS DE BAJO CONSUMO CON REDUCCIÓN DEL IMPACTO",

Degree of contribution: Coordinator of total project, network or consortium

Name principal investigator (PI, Co-PI....): Francisco Vera García

Nº of researchers: 1

Funding entity or bodies:

EQA Certificados I+D+I, S.L.

City funding entity: Madrid, Comunidad de, Spain

Start date: 30/05/2019

Duration: 2 months - 15 days

Total amount: 750 €

12 Name of the project: Desarrollo de equipos de alta capacidad para sistemas de refrigeración basados en amoníaco. Contrato Individual con Experto Técnico.

Degree of contribution: Coordinator of total project, network or consortium

Name principal investigator (PI, Co-PI....): Francisco Vera García

Nº of researchers: 1

Funding entity or bodies:

Agencia de Certificación en Innovación Española ACIE.

Type of entity: Empresa de Evaluación de proyectos

Start date: 25/04/2019

Duration: 4 months

Total amount: 500 €

13 Name of the project: Informe de 2ª opinión al Ministerio de Ciencia Innovación y Universidades, relativo al proyecto "ESTUDIO DE MOTORES Y HÉLICES PARA MEJORAR LA EFICIENCIA ENERGÉTICA GLOBAL EN EL SECTOR VENTILACIÓN"

Degree of contribution: Coordinator of total project, network or consortium

Name principal investigator (PI, Co-PI....): Francisco Vera García

Nº of researchers: 1

Funding entity or bodies:

Ministerio de Ciencia e Innovación

Type of entity: Ministerio

City funding entity: Madrid, Madrid, Comunidad de, Spain

**Start date:** 05/04/2019**Duration:** 3 months**Total amount:** 400 €

14 Name of the project: Informe de 2ª opinión al Ministerio de Ciencia Innovación y Universidades, relativo al proyecto "DESARROLLO DE UN NOVEDOSO SISTEMA DE PRUEBAS DE FALLOS PARA MOTOPROPULSORES"

Degree of contribution: Coordinator of total project, network or consortium**Name principal investigator (PI, Co-PI....):** Francisco Vera García**Nº of researchers:** 1**Funding entity or bodies:**

Ministerio de Ciencia e Innovación. Investigación

Type of entity: Minsiterio**City funding entity:** Madrid, Madrid, Comunidad de, Spain**Start date:** 30/11/2018**Duration:** 4 months**Total amount:** 400 €

15 Name of the project: "Diseño y desarrollo de nueva solución tecnológica integral de máxima eficiencia para bancos de pruebas de testeo de emisiones de vehículos en condiciones extremas. Trámite de audiencia. Evaluador D. Francisco Vera García. Expediente nº 2000.002.17."

Degree of contribution: Coordinator of total project, network or consortium**Name principal investigator (PI, Co-PI....):** Francisco Vera García**Nº of researchers:** 1**Participating entity/entities:** ACIE y UPCT**Funding entity or bodies:**

Agencia de Certificación en Innovación Española ACIE.

Start date: 10/11/2018**Duration:** 1 month - 4 days**Total amount:** 121 €

16 Name of the project: "El objeto del presente Contrato es la realización por parte del Exp. T. del servicio de evaluación del proyecto NUEVOS SISTEMAS EGR PARA LA RECIRCULACION DE GASES DE ESCAPE EN VEHICULOS CON ALTAS PRESTACIONES con código ACIE de Expediente 814.018.18, con código UNESCO 3313 y para una certificación de tipo Certificado de seguimiento según el Real Decreto 1432/2003, de 21 de noviembre y/o la Norma UNE 166001:2006."

Degree of contribution: Coordinator of total project, network or consortium**Name principal investigator (PI, Co-PI....):** Francisco Vera García**Nº of researchers:** 1**Participating entity/entities:** ACIE y UPCT**Funding entity or bodies:**

Agencia de Certificación en Innovación Española ACIE.

Start date: 26/10/2018**Duration:** 1 month - 6 days**Total amount:** 786,5 €

17 Name of the project: "El objeto del presente Contrato es la realización por parte del Exp. T. del servicio de evaluación del proyecto DESARROLLO EXPERIMENTAL DE RED TERMICA INTEGRAL EN INSTALACIONES DEPORTIVAS con código ACIE de Expediente 2010.002.18, con código UNESCO 3313 y para una certificación de tipo Certificado de seguimiento según el Real Decreto 1432/2003, de 21 de noviembre y/o la Norma UNE 166001:2006."

Degree of contribution: Coordinator of total project, network or consortium**Name principal investigator (PI, Co-PI....):** Francisco Vera García**Nº of researchers:** 1**Participating entity/entities:** ACIE y UPCT

**Funding entity or bodies:**

Agencia de Certificación en Innovación Española ACIE.

Start date: 25/06/2018**Duration:** 3 months - 7 days**Total amount:** 605 €

- 18 Name of the project:** Evaluación del funcionamiento de un sistema de evaporación destinado a la eliminación aguas salobres

Degree of contribution: Coordinator of total project, network or consortium**Name principal investigator (PI, Co-PI....):** Francisco Vera García**Nº of researchers:** 1**Participating entity/entities:** COBET-Tratamientos del Agua**Funding entity or bodies:**

COBET-Tratamiento de Aguas S.L.

Start date: 05/03/2018**Duration:** 4 months**Total amount:** 2.633,53 €

- 19 Name of the project:** Análisis de las posibilidades de mejora de la eficiencia energética y reducción de emisiones de CO2 sobre 13 instalaciones deportivas municipales de la ciudad de Murcia

Degree of contribution: Coordinator of total project, network or consortium**City of entity:** Murcia,**Name principal investigator (PI, Co-PI....):** Francisco Vera García**Nº of researchers:** 1**Participating entity/entities:** Servicio ALEM del Ayuntamiento de Murcia. y UPCT**Funding entity or bodies:**

AYUNTAMIENTO DE MURCIA

City funding entity: Murcia, Región de, Spain**Start date:** 01/12/2017**Duration:** 6 months - 30 days**Total amount:** 7.971,77 €

- 20 Name of the project:** "El objeto del presente Contrato es la realización por parte del Exp. T. del servicio de evaluación del proyecto DESARROLLO EXPERIMENTAL DE RED TÉRMICA INTEGRAL EN INSTALACIONES DEPORTIVAS con código ACIE de Expediente 2010.002.17, con código UNESCO 3313 y para una certificación de tipo Contenido y 1ª Ejecución sin ex-ante según el Real Decreto 1432/2003, de 21 de noviembre y/o la Norma UNE 166001:2006."

Degree of contribution: Coordinator of total project, network or consortium**Name principal investigator (PI, Co-PI....):** Francisco Vera García**Nº of researchers:** 1**Participating entity/entities:** ACIE y UPCT**Funding entity or bodies:**

Agencia de Certificación en Innovación Española ACIE.

Start date: 14/11/2017**Duration:** 3 months - 1 day**Total amount:** 786,5 €

- 21 Name of the project:** "Evaluación y realización por parte del Exp. T. del servicio de evaluación del proyecto -Diseño y desarrollo de nueva solución tecnológica integral de máxima eficiencia para bancos de pruebas de testeo de emisiones de vehículos en condiciones extremas- con código ACIE de Expediente 2000.002.17, con código UNESCO 3317, 3313 y para una certificación de tipo Contenido y 1ª Ejecución sin ex-ante según el Real Decreto 1432/2003, de 21 de noviembre y/o la Norma UNE 166001:2006"

Degree of contribution: Coordinator of total project, network or consortium**Name principal investigator (PI, Co-PI....):** Francisco Vera García



Nº of researchers: 1

Participating entity/entities: ACIE y UPCT

Funding entity or bodies:

Agencia de Certificación en Innovación Española ACIE.

Start date: 10/07/2017

Duration: 7 months - 5 days

Total amount: 1.149,5 €

22 Name of the project: Curso de formación “Reformas en vehículos que afectan a la emisión por el escape de contaminantes y ensayos de medida de emisiones en vehículos ligeros y pesados, y motocicletas.” A los empleados de la empresa de acuerdo al programa adjunto

Degree of contribution: Scientific coordinator

Name principal investigator (PI, Co-PI....): J. Hernández Grau; F. Vera García

Nº of researchers: 2

Participating entity/entities: ITV y UPCT

Funding entity or bodies:

Laboratorio Técnico de Reformas S.L.

Start date: 14/11/2016

Duration: 16 days

Total amount: 960,86 €

23 Name of the project: Adenda al contrato “Desarrollo de un sistema de diagnosis para dos motores destinado a la ayuda en la predicción de fallos basado en modelo termodinamico 0D”

Degree of contribution: Coordinator of total project, network or consortium

Name principal investigator (PI, Co-PI....): Francisco Vera García

Nº of researchers: 2

Participating entity/entities: Navantia; S.A. y UPCT

Funding entity or bodies:

Navantia Cartagena

Type of entity: Business

City funding entity: Cartagena, Murcia, Región de, Spain

Navantia

Type of entity: Business

City funding entity: Madrid, Madrid, Comunidad de, Spain

Start date: 01/09/2016

Duration: 2 years - 3 months - 30 days

Total amount: 44.338,73 €

24 Name of the project: Análisis de la Viabilidad Técnica y Económica de Mejora de los Sistemas Térmicos para la Optimización de Consumo en 4 Piscinas Climatizadas del Municipio de Murcia

Degree of contribution: Coordinator of total project, network or consortium

Name principal investigator (PI, Co-PI....): Francisco Vera García

Nº of researchers: 2

Participating entity/entities: Servicio ALEM del Ayuntamiento de Murcia. y UPCT

Funding entity or bodies:

AYUNTAMIENTO DE MURCIA

City funding entity: Murcia, Región de, Spain

Start date: 01/12/2015

Duration: 4 months - 30 days

Total amount: 5.774,7 €

25 Name of the project: Desarrollo de un sistema de trigeneración a gas aplicado a centros deportivos con piscina climatizada.

Degree of contribution: Scientific coordinator

Name principal investigator (PI, Co-PI....): José Hernández Grau; F. Vera García



Nº of researchers: 3

Participating entity/entities: -EQUIDESAS; CDTI; SL. y UPCT

Funding entity or bodies:

Centro para el Desarrollo Tecnológico Industrial **Type of entity:** Business

City funding entity: Madrid, Madrid, Comunidad de, Spain

EQUIDESAS

Type of entity: Business

City funding entity: Murcia, Región de, Spain

Start date: 01/02/2015

Duration: 1 year - 1 day

Total amount: 119.079,7 €

26 Name of the project: Desarrollo de un modelo termodinámico 1D para dos motores diesel

Degree of contribution: Coordinator of total project, network or consortium

Name principal investigator (PI, Co-PI....): Francisco Vera García; J. hernández Grau

Nº of researchers: 2

Participating entity/entities: Navantia; S.A. y UPCT

Funding entity or bodies:

S.A.

Navantia

Type of entity: Business

City funding entity: Madrid, Madrid, Comunidad de, Spain

Start date: 11/11/2014

Duration: 2 years - 6 months

Total amount: 12.156,94 €

27 Name of the project: Desarrollo de un sistema de diagnosis para dos motores destinado a la ayuda en la predicción de fallos basado en modelo termodinamico 0D

Degree of contribution: Coordinator of total project, network or consortium

Name principal investigator (PI, Co-PI....): Francisco Vera García; J. Henández Grau

Nº of researchers: 2

Participating entity/entities: Navantia; S.A. y UPCT

Funding entity or bodies:

Navantia

Type of entity: Business

City funding entity: Madrid, Madrid, Comunidad de, Spain

Start date: 11/11/2014

Duration: 2 years - 6 months

Total amount: 92.966,49 €

28 Name of the project: Desarrollo de un sistema de EEscape con catalizador Adaptado al CONtrol de la combustión para la reducción de emisiones en motores de cuatro tiempos de MOTOcicleta (DESACO-MOTO) (CDTI)

Degree of contribution: Scientific coordinator

Name principal investigator (PI, Co-PI....): José Hernández Grau; F. Vera Gacia

Nº of researchers: 2

Participating entity/entities: -Turbo-Kit SL. y UPCT; CDTI - EEA Grants

Funding entity or bodies:

Turbo-Kit SL

Centro para el Desarrollo Tecnológico Industrial

Type of entity: Business

City funding entity: Madrid, Madrid, Comunidad de, Spain

Start date: 01/07/2014

Duration: 1 year - 5 months - 30 days

Total amount: 36.300 €



- 29** **Name of the project:** "Valorización del CO2 Obtenido de la Biometanización de Deshechos para su Utilización en la Logística de Frío", AEI-010300-2012-145.
Degree of contribution: Scientific coordinator
Name principal investigator (PI, Co-PI....): José Ramón García Cascales; F. Vera García; J. Henández Grau
Nº of researchers: 4
Participating entity/entities: UPCT y AML (Asociación Murciana de Logística)
Funding entity or bodies:
Ministerio de Industria Energía y Turismo **Type of entity:** State agency
AML **Type of entity:** Technological Centre
Start date: 01/01/2013 **Duration:** 5 months
Total amount: 44.244,86 €
- 30** **Name of the project:** Tecnología de inyección de hidrógeno y gas natural en motores Diesel Euro 5 de uso en transporte pesado. Segunda fase
Degree of contribution: Scientific coordinator
Name principal investigator (PI, Co-PI....): J. Hernández Grau; F. Vera García
Nº of researchers: 4
Participating entity/entities: AML y UPCT
Funding entity or bodies:
ASOCIACIÓN MURCIANA DE LOGÍSTICA **Type of entity:** Technological Centre
Start date: 18/12/2012 **Duration:** 3 months - 29 days
Total amount: 40.126,02 €
- 31** **Name of the project:** MODÉLISATION DE LA MOBILISATION ET DE L'EXPLOSION DE POUSSIÈRES (DA 3000011012/CA32000911)
Degree of contribution: Scientific coordinator
Name principal investigator (PI, Co-PI....): J.R. García Cascales; F. Vera García
Nº of researchers: 5
Funding entity or bodies:
IRSN- SIRET **Type of entity:** R&D Centre
City funding entity: Île de France, France
Start date: 31/10/2012
Total amount: 120.000 €
- 32** **Name of the project:** Estudio de la influencia de la refrigeración con aire de forma natural o inducida en el comportamiento de instalaciones fotovoltaicas
Degree of contribution: Scientific coordinator
Name principal investigator (PI, Co-PI....): J.R. García Cascales; F. Vera García
Nº of researchers: 4
Participating entity/entities: APIA XXI y UPCT
Funding entity or bodies:
APIA XXI **Type of entity:** Business
Start date: 23/05/2011 **Duration:** 11 months - 30 days
Total amount: 50.281,89 €
- 33** **Name of the project:** Desarrollo de tecnología de inyección de hidrógeno y gas natural en motores Diesel Euro 5 de uso en transporte pesado
Degree of contribution: Scientific coordinator



Name principal investigator (PI, Co-PI....): J. Hernández Grau; F. Vera García

Nº of researchers: 3

Participating entity/entities: AML y UPCT

Funding entity or bodies:

ASOCIACIÓN MURCIANA DE LOGÍSTICA

Type of entity: Technological Centre

Start date: 01/02/2011

Duration: 5 months - 30 days

Total amount: 38.079,3 €

34 Name of the project: Mejora del rendimiento de instalaciones fotovoltaicas en invernaderos

Degree of contribution: Scientific coordinator

Name principal investigator (PI, Co-PI....): J.R. García Cascales; F. Vera García

Nº of researchers: 5

Participating entity/entities: APIA XXI y UPCT

Funding entity or bodies:

APIA XXI

Type of entity: Business

Start date: 17/03/2010

Duration: 11 months - 30 days

Total amount: 70.200,47 €

35 Name of the project: Balance energético 2008 en la Comunidad Autónoma de la Región de Murcia

Degree of contribution: Scientific coordinator

Name principal investigator (PI, Co-PI....): J.R. García Cascales; F. Vera García

Nº of researchers: 3

Participating entity/entities: Universidad Politécnica de Cartagena

Funding entity or bodies:

Dirección General de Industria. Consejería de
Universidades

Type of entity: State agency

City funding entity: Murcia, Murcia, Región de, Spain

Start date: 01/03/2010

Duration: 3 months

Total amount: 12.000 €

36 Name of the project: Elaboración de una propuesta para el Plan de Acción de Energía Sostenible del Municipio de Murcia. 2852/09ITF

Degree of contribution: Apoyo a la investigación

Name principal investigator (PI, Co-PI....): F. Vera García

Nº of researchers: 3

Participating entity/entities: ALEM y UPCT

Funding entity or bodies:

Agencia local de la energía y cambio climático de
Murcia (ALEM)

Type of entity: State agency

City funding entity: Murcia, Murcia, Región de, Spain

Start date: 20/11/2009

Duration: 3 months

Total amount: 6.141,18 €

37 Name of the project: Desarrollo de un secadero de serrín y astilla de madera mediante el aprovechamiento de la energía solar y la biomasa. 2779/09ITF

Degree of contribution: Coordinator of total project, network or consortium

Name principal investigator (PI, Co-PI....): F. Vera García; J.R. García Cascales

Nº of researchers: 4

Participating entity/entities: ZORA y UPCT

**Funding entity or bodies:**

Arquitectura e Instalaciones ZORA SLP

Start date: 20/10/2009**Duration:** 1 year - 5 months - 29 days**Total amount:** 25.451,76 €**38 Name of the project:** Modélisation de la mobilisation et l'explosion de poussières DA 88525 / CA 31004524**Degree of contribution:** Apoyo a la investigación**Name principal investigator (PI, Co-PI...):** J.R. García Cascales; F. Vera García**Nº of researchers:** 3**Participating entity/entities:** IRSN y UPCT**Funding entity or bodies:**

IRSN – INSTITUT DE RADIOPROTECTION ET DE SÛRETÉ NUCLÉAIRE

Type of entity: R&D Centre**City funding entity:** Paris, Île de France, France**Start date:** 31/05/2009**Duration:** 2 years - 5 months - 29 days**Total amount:** 120.450 €**39 Name of the project:** Mejora del rendimiento de instalaciones fotovoltaicas mediante la refrigeración combinada. 2653/09ITF**Degree of contribution:** Scientific coordinator**Name principal investigator (PI, Co-PI...):** J.R. García Cascales; F. Vera García**Nº of researchers:** 4**Participating entity/entities:** APIA XXI y UPCT**Funding entity or bodies:**

APIA XXI

Type of entity: Business**Start date:** 25/03/2009**Duration:** 1 year**Total amount:** 69.408,94 €**40 Name of the project:** Asesoría energética de una instalación de climatización mediante una máquina de absorción singular alimentada con energía solar 2575/08ITF**Degree of contribution:** Coordinator of total project, network or consortium**Name principal investigator (PI, Co-PI...):** F. Vera García**Nº of researchers:** 6**Participating entity/entities:** ARGEM y UPCT**Funding entity or bodies:**

Agencia Regional de Gestión de Energía de Murcia (ARGEM)

Type of entity: State agency**Start date:** 20/12/2008**Duration:** 4 months**Total amount:** 5.172,41 €**41 Name of the project:** Desarrollo de un banco de ensayos de captadores solares térmicos. 2578/08ITF**Degree of contribution:** Scientific coordinator**Name principal investigator (PI, Co-PI...):** José Ramón García Cascales; F. Vera García**Nº of researchers:** 6**Participating entity/entities:** ARGEM y UPCT**Funding entity or bodies:**

Agencia Regional de Gestión de Energía de Murcia (ARGEM)

Type of entity: State agency**City funding entity:** Murcia, Murcia, Región de, Spain

**Start date:** 20/12/2008**Duration:** 1 year**Total amount:** 12.931,02 €

42 Name of the project: Desarrollo de un colector de concentración de pequeño tamaño para aplicación en frío solar. 2579/08ITF

Degree of contribution: Scientific coordinator**Name principal investigator (PI, Co-PI....):** José Ramón García Cascales; F. Vera García**Nº of researchers:** 6**Participating entity/entities:** ARGEM y UPCT**Funding entity or bodies:**Agencia Regional de Gestión de Energía de Murcia (ARGEM) **Type of entity:** State agency**City funding entity:** Murcia, Murcia, Región de, Spain**Start date:** 20/12/2008**Duration:** 1 year**Total amount:** 10.344,83 €

43 Name of the project: Desarrollo de un colector solar plano con transferencia de calor mejorada. 2577/08ITF

Degree of contribution: Scientific coordinator**Name principal investigator (PI, Co-PI....):** José Pérez García; F. Vera García**Nº of researchers:** 6**Participating entity/entities:** ARGEM y UPCT**Funding entity or bodies:**Agencia Regional de Gestión de Energía de Murcia (ARGEM) **Type of entity:** State agency**City funding entity:** Murcia, Región de, Spain**Start date:** 20/12/2008**Duration:** 1 year**Total amount:** 7.750 €

44 Name of the project: Desarrollo, instrumentación y modelado de una instalación de absorción asistida con energía solar en la UPCT. 2580/08ITF

Degree of contribution: Scientific coordinator**Name principal investigator (PI, Co-PI....):** José Ramón García Cascales; F. Vera García**Nº of researchers:** 6**Participating entity/entities:** ARGEM y UPCT**Funding entity or bodies:**Agencia Regional de Gestión de Energía de Murcia (ARGEM) **Type of entity:** State agency**City funding entity:** Murcia, Región de, Spain**Start date:** 20/12/2008**Duration:** 1 year**Total amount:** 15.517,24 €

45 Name of the project: Profundización en los modelos de máquina de absorción. Friosol II-molina. 2576/08ITF

Degree of contribution: Coordinator of total project, network or consortium**Name principal investigator (PI, Co-PI....):** F. Vera García**Nº of researchers:** 6**Participating entity/entities:** ARGEM y UPCT**Funding entity or bodies:**

Agencia Regional de Gestión de Energía de Murcia (ARGEM)



Start date: 20/12/2008
Total amount: 4.310,35 €

Duration: 4 months

46 Name of the project: Modelado de intercambiadores compactos funcionando como evaporadores. Aplicación al software Mpower.

Degree of contribution: Scientific coordinator

Name principal investigator (PI, Co-PI....): J.R. García Cascales; F. Vera García

Nº of researchers: 2

Participating entity/entities: MODINE Manufacturing Company y UPCT

Funding entity or bodies:

MODINE Manufacturing Company

Type of entity: Business

Start date: 21/07/2008

Duration: 2 months

Total amount: 2.500 €

47 Name of the project: Réalisation d'actions de synthèse bibliographique, de développement et de validation de modèles de mobilisation et d'explosion de poussières 2406/08ITF

Degree of contribution: Scientific coordinator

Name principal investigator (PI, Co-PI....): J.R. García Cascales; F. Vera García

Nº of researchers: 3

Participating entity/entities: IRSN y UPCT

Funding entity or bodies:

IRSN – INSTITUT DE RADIOPROTECTION ET DE SÛRETÉ NUCLÉAIRE

City funding entity: Île de France, France

Start date: 14/04/2008

Duration: 8 months - 17 days

Total amount: 14.999 €

48 Name of the project: Convenio para la construcción de instalación de refrigeración solar y suministro de energía en un aula del aulario nº1 situado en el campus de Alfonso XIII. Entidad contratante: IDAE

Degree of contribution: Scientific coordinator

Name principal investigator (PI, Co-PI....): José Ramón García Cascales

Nº of researchers: 2

Funding entity or bodies:

Instituto para la Diversificación y Ahorro de Energía

Type of entity: State agency

Start date: 01/11/2007

Duration: 1 month - 30 days

Total amount: 30.000 €

49 Name of the project: Estudio de la incidencia de la licencia urbanística y base imponible en el impuesto sobre construcciones instalaciones y obras de las centrales de ciclo combinado en cartagena

Degree of contribution: Scientific coordinator

Name principal investigator (PI, Co-PI....): J.R. García; F. Vera García; F. Campuzano

Nº of researchers: 3

Participating entity/entities: Ayuntamiento de Cartagena y UPCT

Funding entity or bodies:

AYUNTAMIENTO DE CARTAGENA

City funding entity: Murcia, Región de, Spain

Start date: 01/11/2007

Duration: 1 month - 30 days

Total amount: 23.200 €



50 Name of the project: Monitorización y plan de mejoras técnicas propuestas para optimizar la eficiencia global del sistema de climatización solar por absorción

Degree of contribution: Scientific coordinator

Name principal investigator (PI, Co-PI....): J.R. García Cascales; F. Vera García

Nº of researchers: 2

Participating entity/entities: ARGEM y UPCT

Funding entity or bodies:

ARGEM

Type of entity: State agency

City funding entity: Murcia, Región de, Spain

Start date: 01/11/2007

Duration: 5 years

Total amount: 2.500 €

51 Name of the project: Análisis energético de una instalación de frío con energía solar

Degree of contribution: Scientific coordinator

Name principal investigator (PI, Co-PI....): F. Vera García; J.R. García

Nº of researchers: 2

Participating entity/entities: ARGEM y UPCT

Funding entity or bodies:

Agencia Regional de Gestión de Energía de Murcia (ARGEM)

Type of entity: State agency

City funding entity: Murcia, Región de, Spain

Start date: 01/04/2007

Duration: 3 months - 30 days

Total amount: 7.540 €

52 Name of the project: Dimensionado hidráulico óptimo de los componentes del circuito primario de una instalación solar térmica

Degree of contribution: Scientific coordinator

Name principal investigator (PI, Co-PI....): J. Pérez; F. Vera García; J. R. García

Nº of researchers: 3

Participating entity/entities: ARGEM y UPCT

Funding entity or bodies:

Agencia Regional de Gestión de Energía de Murcia (ARGEM)

Start date: 01/04/2007

Duration: 2 months - 29 days

Total amount: 3.770 €

53 Name of the project: Improvements for software M-Power

Degree of contribution: Scientific coordinator

Name principal investigator (PI, Co-PI....): J.R. García; F. Vera

Nº of researchers: 2

Participating entity/entities: MODINE Manufacturing Company y UPCT

Funding entity or bodies:

MODINE Manufacturing Company

Type of entity: Business

Start date: 01/04/2007

Duration: 5 months - 29 days

Total amount: 13.020 €

54 Name of the project: Realización de un mapa de irradiación solar de la Región de Murcia

Degree of contribution: Coordinator of total project, network or consortium

Name principal investigator (PI, Co-PI....): F. Vera García

Nº of researchers: 2



Participating entity/entities: ARGEM y UPCT

Funding entity or bodies:

Agencia Regional de Gestión de Energía de Murcia (ARGEM)

Type of entity: State agency

City funding entity: Murcia, Región de, Spain

Start date: 01/04/2007

Duration: 2 months - 29 days

Total amount: 3.770 €

55 Name of the project: Design of a Two-Stage Turbocharger System to Improve Steady-State Performance and Transient Response of a EURO 4 High BMEP Heavy-Duty Engine

Degree of contribution: Researcher

Name principal investigator (PI, Co-PI....): F.Payri

Nº of researchers: 8

Participating entity/entities: Renault Véhicules Industriels y CMT

Funding entity or bodies:

Renault Véhicules Industriels

Type of entity: Business

City funding entity: France

Start date: 01/03/2003

Duration: 2 years

Total amount: 180.000 €

56 Name of the project: Transient Behaviour Improvement with Variable Geometry Turbine (VGT).

Degree of contribution: Researcher

Name principal investigator (PI, Co-PI....): F.Payri

Nº of researchers: 4

Participating entity/entities: Renault Véhicules Industriels y CMT

Funding entity or bodies:

Renault Véhicules Industriels

City funding entity: France

Start date: 01/04/2002

Duration: 1 year - 5 months - 29 days

Total amount: 54.000 €

57 Name of the project: Desarrollo de un sistema electrónico para el control de motores diesel de automoción. Importe: 151300 €

Degree of contribution: Researcher

Name principal investigator (PI, Co-PI....): F.Payri

Nº of researchers: 11

Participating entity/entities: NAGARES S.A y CMT

Funding entity or bodies:

NAGARES S.A

Type of entity: Business

Start date: 02/05/2000

Duration: 1 year

Total amount: 151.300 €

58 Name of the project: Combustion process optimisation with EGR and high bmep for Euro IV and US 2002 regulations.

Degree of contribution: Researcher

Name principal investigator (PI, Co-PI....): F.Payri

Nº of researchers: 5

Participating entity/entities: Renault Véhicules Industriels y CMT

Funding entity or bodies:



Renault Véhicules Industriels

Type of entity: Business

Start date: 01/02/2000

Duration: 3 years - 1 day

Total amount: 150.000 €

59 Name of the project: Nuevo Concepto de Motor de Dos Tiempos para Vehículos Urbanos.

Degree of contribution: Researcher

Name principal investigator (PI, Co-PI....): F.Payri

Nº of researchers: 7

Participating entity/entities: DERBI y CMT

Funding entity or bodies:

DERBY Nacional Motor S.A.

Type of entity: Business

City funding entity: Cataluña, Spain

Start date: 12/1998

Duration: 3 years

Total amount: 120.000 €

60 Name of the project: Development of the Combustion and EGR circuit for an EURO IV Heavy Duty turbocharger Diesel Engine with High EGR Ratio.

Degree of contribution: Researcher

Name principal investigator (PI, Co-PI....): F. Payri

Nº of researchers: 5

Participating entity/entities: RVI y CMT

Funding entity or bodies:

Renault V.I.

Start date: 01/10/1998

Duration: 2 years

Total amount: 89.000 €

61 Name of the project: Análisis of the Combustión Process Visualitation

Degree of contribution: Researcher

Name principal investigator (PI, Co-PI....): F. Payri

Nº of researchers: 6

Participating entity/entities: RVI y CMT

Funding entity or bodies:

Renault V.I

Start date: 01/06/1997

Duration: 3 years - 1 month

Total amount: 92.000 €



Scientific and technological activities

Scientific production

- 1** **H index:** 18
Date of application: 27/11/2024
Source of H-Index: WOS
- 2** **H index:** 22
Date of application: 07/10/2025
Source of H-Index: GOOGLE SCHOLAR
- 3** **H index:** 19
Date of application: 01/12/2025
Source of H-Index: SCOPUS

Publications, scientific and technical documents

- 1** Francisco Vera García; Jose Javier Rubio Rubio; Alejandro López Belchí; Eloy Hontoria. Modelling and real-data validation of a logistic centre using TRNSYS®: Influences of the envelope, infiltrations and stored goods. Energy & Buildings. 275 - 1, Elsevier, 20/09/2022. Available on-line at: <<https://doi.org/10.1016/j.enbuild.2022.112474>>. ISSN 0378-7788
DOI: 10.1016/j.enbuild.2022.112474
Type of production: Scientific paper
Position of signature: 1
Total no. authors: 4
Relevant publication: Yes
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: No
- 2** José Ramón García Cascales; Fernando Illán Gómez; Francisco Javier Sánchez Velasco; Francisco Vera García; Antonio Dengra Vera; Fernando García. Experimental analysis of the thermal comfort provided by an electrical heater and a heat pump. Journal of Physics. 2116 - 1, pp. 012105 - 012112. IOP Publishing, 01/11/2021. Available on-line at: <[10.1088/1742-6596/2116/1/012105](https://doi.org/10.1088/1742-6596/2116/1/012105)>. ISSN 1742-6588
DOI: 10.1088/1742-6596/2116/1/012105
Type of production: Scientific paper
Position of signature: 4
Total no. authors: 6
Relevant publication: Yes
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: No
- 3** Ana Fernández Guillamón; Ánge Molina García; Francisco Vera García; José A. Almendros Ibáñez. Organic Rankine Cycle Optimization Performance Analysis Based on Super-Heater Pressure: Comparison of Working Fluids. Energies. 14 - 9, pp. 2548 - 2548. MDPI, 29/04/2021. Available on-line at: <<https://doi.org/10.3390/en14092548>>. ISSN 1996-1073
DOI: 10.3390/en14092548
Type of production: Scientific paper
Position of signature: 4
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee



Total no. authors: 4
Impact source: WOS (JCR)
Impact index in year of publication: 2.702
Relevant publication: Yes

Corresponding author: No
Category: Science Edition - ENERGY & FUELS

- 4** Eloy Hontoria; Alejandro López Belchí; Nolberto Murnier; Francisco Vera García. A MCDM Methodology to Determine the Most Critical Variables in the Pressure Drop and Heat Transfer in Minichannels. *Energies*. 14 - 8, pp. 2069 - 2069. MDPI, 08/04/2021. Available on-line at: <<https://doi.org/10.3390/en14082069>>. ISSN 1996-1073

DOI: 10.3390/en14082069
Type of production: Scientific paper
Position of signature: 4

Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes

Total no. authors: 4
Impact source: WOS (JCR)
Impact index in year of publication: 2.702
Relevant publication: Yes

Category: Science Edition - ENERGY & FUELS

- 5** Francisco Vera García; Daniel Albaladejo Hernández; José Hernández Grau. Influence of catalyst, exhaust systems and ECU configurations on the motorcycle pollutant emissions. *Result in Engineering*. 5 - 100080, pp. 100080 - 100080. ELSEVIER, 2020. Available on-line at: <<https://doi.org/10.1016/j.rineng.2019.100080>>. ISSN 2590-1230

DOI: 10.1016/j.rineng.2019.100080
Type of production: Scientific paper
Position of signature: 1

Format: Journal

Total no. authors: 3
Relevant publication: Yes

Corresponding author: Yes

- 6** Francisco Vera García; José Antonio Pagán Rubio; José Hernández Grau; Daniel Albaladejo Hernández. Improvements of a Failure Database for Marine Diesel Engines Using the RCM and Simulations. *Energies*. 13 - 1, pp. 1 - 30. MDPI, 2020. Available on-line at: <<https://doi.org/10.3390/en13010104>>. ISSN 1996-1073

DOI: 10.3390/en13010104
Type of production: Scientific paper
Position of signature: 1

Format: Journal

Total no. authors: 4
Relevant publication: Yes

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes

- 7** José Pable Delgado Marín; Francisco Vera García; José Ramón García Cascales. Use of a Predictive Control to Improve the Energy Efficiency in Indoor Swimming Pools using Solar Thermal Energy. *Solar Energy*. 179, pp. 380 - 390. ELSEVIER, 2019. Available on-line at: <<https://doi.org/10.1016/j.solener.2019.01.004>>. ISSN 0038-092X

DOI: 10.1016/j.solener.2019.01.004
Type of production: Scientific paper
Position of signature: 2

Format: Journal

Total no. authors: 3
Relevant publication: Yes

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: No

- 8** José Antonio Pagán Rubio; Francisco Vera García; José Hernandez Grau; José Muñoz Cámara; Daniel Albaladejo Hernandez. Marine diesel engine failure simulator based on thermodynamic model. *Applied Thermal Engineering*. 144, pp. 982 - 995. ELSEVIER ISSN 1359-4311, 2018. Available on-line at: <<https://doi.org/10.1016/j.applthermaleng.2018.08.096>>. ISSN 1359-4311

DOI: 10.1016/j.applthermaleng.2018.08.096



Type of production: Scientific paper
Position of signature: 2

Total no. authors: 5

Relevant publication: Yes

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: Yes

- 9** Alejandro López Belchí; Fernando Illán Gómez; José Ramón García Cascales; Francisco Vera García. Condensing two-phase pressure drop and heat transfer coefficient of propane in a horizontal multiport mini-channel tube: Experimental measurements. *International Journal of Refrigeration*. 68, pp. 59 - 75. ELSEVIER, 2016. Available on-line at: <<http://dx.doi.org/10.1016/j.ijrefrig.2016.03.015>>. ISSN 0140-7007

Type of production: Scientific paper

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: No

Relevant publication: Yes

- 10** Alejandro López Belchí; Fernando Illán Gómez; José Ramón García Cascales; Francisco Vera García. R32 and R410A condensation heat transfer coefficient and pressure drop within minichannel multiport tube. *Experimental technique and measurements. Applied Thermal Engineering*. 105, pp. 108 - 131. ELSEVIER, 2016. Available on-line at: <<http://dx.doi.org/10.1016/j.applthermaleng.2016.05.143>>. ISSN 1359-4311

Type of production: Scientific paper

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: No

Relevant publication: Yes

- 11** Ramón Otón Martínez; Guillermo Monreal González; José Ramón García Cascales; Francisco Vera García; F.J. Ramírez Fernández. An approach formulated in terms of conserved variables for the characterisation of propellant combustion in internal ballistics. *International Journal for Numerical Methods in Fluids*. 79 - 8, pp. 394 - 415. Wiley Online Library, 2015. Available on-line at: <<http://onlinelibrary.wiley.com/doi/10.1002/flid.4056>>. ISSN 1097-0363
DOI: 10.1002/flid.4056

Type of production: Scientific paper

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: No

Relevant publication: Yes

- 12** F. Illán Gómez; A. López Belchí; J.R García Cáscales; Francisco Vera García. Experimental two-phase heat transfer coefficient and frictional pressure drop inside mini-channels during condensation with R1234yf and R134a. *International Journal of Refrigeration*. 51, pp. 12 - 23. ELSEVIER, 2015. Available on-line at: <<http://dx.doi.org/10.1016/j.ijrefrig.2014.11.014>>. ISSN 0140-7007

Type of production: Scientific paper

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: No

Relevant publication: Yes

- 13** Alejandro Lopez Belchi; Fernando Illán Gomez; José Ramón Garcia Cáscales; Francisco Vera García. Heat transfer coefficient during condensation inside a minichannel multiport tube with R32 and R410A as working fluids. *Science and Technology for the Built Environment. ASHRAE Journal*. 21 - 5, pp. 535 - 544. Taylor & Francis Group, 2015. Available on-line at: <<http://dx.doi.org/10.1080/23744731.2015.1040340>>. ISSN 2374-4731

Type of production: Scientific paper

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: No

Relevant publication: Yes



- 14** Alejandro López Belchí; Francisco Vera García; José Ramón García Cascales. NON-UNIFORM CONDENSATION OF REFRIGERANT R134A IN MINI-CHANNEL MULTI-PORT TUBES: TWO-PHASE PRESSURE DROP AND HEAT TRANSFER COEFFICIENT. *Journal of Enhanced Heat Transfer*. 22 - 5, pp. 391 - 416. Begell House Group, 2015. Available on-line at: <<http://dx.doi.org/10.1615/JEnhHeatTransf.2016014248>>. ISSN 1065-5131
Type of production: Scientific paper **Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes
Relevant publication: Yes
- 15** F. Ramírez Rivera; A. López Belchí; Francisco Vera García; J.R. García Cascales; F. Illán Gómez. Two phase flow pressure drop in multiport mini-channel tubes using R134a and R32 as working fluids. *International Journal of Thermal Sciences*. 92, pp. 17 - 33. ELSEVIER, 2015. Available on-line at: <<http://dx.doi.org/10.1016/j.ijthermalsci.2015.01.014>>. ISSN 1290-0729
Type of production: Scientific paper **Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes
Relevant publication: Yes
- 16** G. Monreal -González; R. A. Otón Martínez; F. J. S. Velasco; J. R. García- Cascales; Francisco Vera García; C. Bullón -Sánchez; D. Moratilla -Fernández. A ONE-DIMENSIONAL CODE FOR THE ANALYSIS OF INTERNAL BALLISTIC PROBLEMS. 28th International Symposium on Ballistics. pp. 750 - 759. International Symposium on Ballistics, 2014. Available on-line at: <WOS: 000350969700086>. ISBN 978-1-60595-149-2
Type of production: Scientific paper **Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: No
Relevant publication: Yes
- 17** J.R. García Cascales; R.A Otón Martínez; F. J. S. Velasco; Francisco Vera García; A. Bentaib; N. Meynet. Advances in the characterisation of reactive gas and solid mixtures under low pressure conditions. *Computers & Fluids*. 101, pp. 64 - 87. ELSEVIER, 2014. Available on-line at: <<http://dx.doi.org/10.1016/j.compfluid.2014.05.017>>. ISSN 0045-7930
Type of production: Scientific paper **Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: No
Relevant publication: Yes
- 18** A. López Belchí; F. Illán Gomez; Francisco Vera García; J. R. García- Cascales. Experimental condensing two-phase frictional pressure drop inside mini-channels. Comparisons and new model development. *International Journal of Heat and Mass Transfer*. 75, pp. 581 - 591. ELSEVIER, 2014. Available on-line at: <<http://dx.doi.org/10.1016/j.ijheatmasstransfer.2014.04.003>>. ISSN 0017-9310
Type of production: Scientific paper **Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Relevant publication: Yes
- 19** Antoni Sanchez Kaiser; Blas Zamora; Rocio Mazón; J.R. García Cascales; Francisco Vera García. Experimental study of cooling BIPV modules by forced convection in the air channel. *Applied Energy*. 135, pp. 88 - 97. ELSEVIER, 2014. Available on-line at: <<http://dx.doi.org/10.1016/j.apenergy.2014.08.079>>. ISSN 0306-2619
Type of production: Scientific paper **Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: No
Relevant publication: Yes



- 20** R. Mazón Hernández; J. R. García- Cascales; Francisco Vera García; A. S. Káiser; B. Zamora. Improving the Electrical Parameters of a Photovoltaic Panel by Means of an Induced or Forced Air Stream. International Journal of Photoenergy. 2013 - 830968, pp. 10. Hindawi, 2013. Available on-line at: <<http://dx.doi.org/10.1155/2013/830968>>.
Type of production: Scientific paper **Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: No
Relevant publication: Yes
- 21** Francisco Vera García; J. R. García- Cascales; ZAÍDA HERNÁNDEZ GUILLÉN; JOSÉ PABLO DELGADO MARÍN. TREATMENT OF DATA AND GIS IMPLEMENTATION OF SOLAR RADIATION AND TEMPERATURE MAPS. EXAMPLE IN SOUTH-EAST OF SPAIN. ISRN RENEWABLE ENERGY. 2012 - 830968, pp. 10. Hindawi-ISRN, 2012. Available on-line at: <<http://dx.doi.org/10.5402/2012/365469>>. ISSN 2090-746X
Type of production: Scientific paper **Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes
Relevant publication: Yes
- 22** Garcia-Cascales, J.R.; Vera-García, F.; Cano-Izquierdo, J.M.; Delgado-Marín, J.P; Martínez-Sánchez, R. Modelling an absorption system assisted by solar energy. Applied Thermal Engineering. 31, pp. 112 - 118. ELSEVIER, 25/08/2010. Available on-line at: <<http://dx.doi.org/10.1016/j.applthermaleng.2010.08.025>>. ISSN 1359-4311
Type of production: Scientific paper **Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes
Relevant publication: Yes
- 23** Vera-García, F.; Garcia-Cascales, J.R.; González-Maciá J.; Cabello R; Llopis R.; Sanchez D; Torrella, E.. A simplified model for shell-and-tubes heat exchangers. Practical application. Applied Thermal Engineering. 30, pp. 1231 - 1241. ELSEVIER, 2010. Available on-line at: <<http://dx.doi.org/10.1016/j.applthermaleng.2010.02.004>>. ISSN 1359-4311
Type of production: Scientific paper **Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes
Relevant publication: Yes
- 24** J.R. García-Cascales; F. Vera-García; J Zueco- Jordán; A. Bentaib.; N. Meynet; J. Vendel; D. Perrault. Development of a IRSN code for dust mobilisation problems in ITER. Fusion Engineering and Design. 85 - 10-12, pp. 2274 - 2281. ELSEVIER, 2010. Available on-line at: <<http://dx.doi.org/10.1016/j.fusengdes.2010.09.014>>. ISSN 0920-3796
Type of production: Scientific paper **Format:** Scientific and technical document or report
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes
Relevant publication: Yes
- 25** García-Cascales, J.R.; Francisco Vera García; Corberán-Salvador, J.M; Gonzalez-Macia, J; Fuentes-Díaz, D.. Assessment of boiling and condensation heat transfer correlations in the modelling of plate heat exchangers. International Journal of Refrigeration. 30 - 6, pp. 1029 - 1041. ELSEVIER, 2007. Available on-line at: <<http://dx.doi.org/10.1016/j.ijrefrig.2007.01.006>>. ISSN 0140-7007
Type of production: Scientific paper **Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes
Relevant publication: Yes



- 26** García-Cascales, J.R.; Francisco Vera García; Corberán-Salvador, J.M.; Gonzalvez-Macia, J.; Fuentes-Díaz, D.. Assessment of boiling heat transfer correlations in the modelling of fin and tube heat exchangers. *International Journal of Refrigeration*. 30 - 6, pp. 1004 - 1017. ELSEVIER, 2007. Available on-line at: <<http://dx.doi.org/10.1016/j.ijrefrig.2007.01.006>>. ISSN 0140-7007
Type of production: Scientific paper **Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes
Relevant publication: Yes
- 27** Francisco Vera García; García-Cascales, J.R.; Corberán-Salvador, J.M.; Gonzalvez-Macia, J.; Fuentes-Díaz, D.. Assessment of condensation heat transfer correlations in the modelling of fin and tube heat exchangers. *International Journal of Refrigeration*. 30 - 6, pp. 1018 - 1028. ELSEVIER, 2007. Available on-line at: <<http://dx.doi.org/10.1016/j.ijrefrig.2007.01.005>>. ISSN 0140-7007
Type of production: Scientific paper **Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes
Relevant publication: Yes
- 28** Luján, J.M.; Galindo, J.; Francisco Vera García; Climent, H.. Characterization and dynamic response of an exhaust gas recirculation venturi for internal combustion engines. *Proceedings of the Institution of Mechanical Engineers, Part D, Journal of Automobile Engineering*. 221 - 4, pp. 497 - 509. Professional Engineering Publishing, 2007. Available on-line at: <<http://dx.doi.org/10.1243/09544070JAUTO344>>. ISSN 0954-4070
Type of production: Scientific paper **Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes
Relevant publication: Yes
- 29** García-Cascales, J.R.; Francisco Vera García; Gonzalvez-Macia, J.; Corberán-Salvador, J.M.; Fuentes-Díaz, D.; Johnson, M.W.; Kohler, G.T.. Compact heat exchangers modeling: Condensation. *International Journal of Refrigeration*. 33, pp. 135 - 147. ELSEVIER, 2007. Available on-line at: <<http://dx.doi.org/10.1016/j.ijrefrig.2009.08.013>>. ISSN 0140-7007
Type of production: Scientific paper **Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: No
Relevant publication: Yes
- 30** Galindo, J.; Serrano, J.R.; Francisco Vera García; Cervelló, C.; Lejuene, M.. Relevance of valve overlap for meeting Euro 5 soot emissions requirements during load transient process in heavy duty diesel engines. *Int. Journal of Vehicle Design*. 41 - 1-2-3-4, pp. 343 - 367. InderScience Publishers, 2006. Available on-line at: <<http://dx.doi.org/10.1504/IJVD.2006.009675>>. ISSN 0143-3369
Type of production: Scientific paper **Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes
Relevant publication: Yes
- 31** Lujan, J.M; Payri, F; Francisco Vera García; Guardiola, C.. Modelling, effect and behaviour of the EGR venturi in a heavy-duty diesel engine. *SAE Paper No 01ATT-369*. 01ATT-369, pp. 343 - 367. SAE. Inc, 2001. Available on-line at: <<http://dx.doi.org/10.4271/2001-01-3227>>.
Type of production: Scientific paper **Format:** Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes
Relevant publication: Yes



- 32** Pablo Calleja Cayón; Francisco Vera García. Feasibility study of mechanical vapour compression technology for effluent treatment, brine removal and water recovery using modelling techniques and experimental validation. Tesis Doctoral. 1 - 1, pp. 1 - 259. (Spain): Universidad Politécnica de Cartagena, 06/03/2026. Available on-line at: <<http://hdl.handle.net/10317/18042>>.

DOI: 10.31428/10317/21464

Handle: <http://hdl.handle.net/10317/21464>

Type of production: Scientific book or monograph

Position of signature: 2

Format: Book

Degree of contribution: Author or co-author of educational publication

Corresponding author: No

Total no. authors: 2

Relevant results: The work is based on the implementation of a modular model in TRNSYS, capable of simulating the thermodynamic behaviour of MVC systems under different operating configurations. Specific subroutines are incorporated for the simulation of MVC plant components, as well as for brine treatment. Validation is performed using data collected from a real experimental facility and criteria defined by real users, including sensitivity analysis and parametric optimisation. The results show that the model reproduces the energy behaviour of the system with high accuracy, allows the identification of configurations that reduce energy consumption, and facilitates the integration of renewable sources without compromising thermal stability. In addition, the user-centred approach has proven effective in improving operational decision-making at the plant. In conclusion, this thesis provides a practical and robust tool for the design and operation of efficient desalination systems, contributing to the transition towards sustainable water management models aligned with the Sustainable Development Goals and Industry 5.0.

Relevant publication: Yes

- 33** José Antonio Pagán Rubio; Francisco Vera García. Sistema de diagnóstico de motor diesel marino basado en modelo termodinámico y de inteligencia artificial. Publicación de Tesis Doctoral UPCT. 1 - 1, (Spain): Universidad Politécnica de Cartagena, 2017. Available on-line at: <[https://upct.ent.sirsiidynix.net.uk/client/es_ES/default/search/detailnonmodal/ent:\\$002f\\$002fSD_ILS\\$002f0\\$002fSD_ILS:434858/one](https://upct.ent.sirsiidynix.net.uk/client/es_ES/default/search/detailnonmodal/ent:$002f$002fSD_ILS$002f0$002fSD_ILS:434858/one)>.

Type of production: Scientific book or monograph

Format: Book

Corresponding author: Yes

Relevant publication: Yes

- 34** Mazón Hernández Rocío; Francisco Vera García; José Ramón García Cascales. Estudio de la influencia de la refrigeración con aire de forma natural e inducida en el comportamiento de instalaciones fotovoltaicas. Tesis Doctoral. 1 - 1, pp. 1 - 326. (Spain): Universidad Politécnica de Cartagena, 28/11/2014. Available on-line at: <<http://hdl.handle.net/10317/4780>>.

DOI: 10.31428/10317/4780

Handle: <http://hdl.handle.net/10317/4780>

Type of production: Scientific book or monograph

Position of signature: 2

Format: Book

Degree of contribution: Author or co-author of educational publication

Corresponding author: No

Total no. authors: 3

Relevant results: The aim is to analyse the negative influence of high panel temperatures on electrical production when they are placed on steel roofs of industrial buildings and greenhouse roofs. Different configurations have been tested in order to allow cooling of photovoltaic panels to decrease panel temperature and improve electrical performance. To research this problem two experimental facilities have been built. The first facility includes two panels fixed on a structure. A panel is integrated on a parallel steel plate which does not allow sufficient cooling. Between both surfaces, there is an open air channel in which an air flow is created by the chimney effect thus cooling the panel by natural convection or inducing air, using a fan, by forced convection. The other panel has not any plate underneath it and is used as a referent. The electrical behaviour of the integrated panel has been studied for different air gaps and induced velocities, being also compared with the reference panel. An experimental model was developed to establish correlations which allow determine the panel temperature depending on the influential variables on the cooling ability. This research also analyses the data of a working solar plant, with the same panel model, obtaining the correlations between electrical variables and panel temperature.

Relevant publication: Yes



- 35** Alejandro López Belchí; Francisco Vera García; José Ramón García Cascales. Characterisation of heat transfer and pressure drop in condensation processes within mini-channel tubes with last generation of refrigerant fluids. Tesis Doctoral. 1 - 1, pp. 1 - 326. (Spain): Universidad Politécnica de Cartagena, 28/10/2014. Available on-line at: <<http://hdl.handle.net/10317/4595>>.

DOI: 10.31428/10317/4595

Handle: <http://hdl.handle.net/10317/4595>

Type of production: Scientific book or monograph

Position of signature: 2

Format: Book

Degree of contribution: Author or co-author of educational publication

Corresponding author: No

Total no. authors: 3

Relevant results: Heat exchanger developments are driven by energetic efficiency increase and emission reduction. To reach the standards new system are required based on mini-channels. Mini-channels can be described as tubes with one or more ports extruded in aluminium with hydraulic diameter are in the range of 0.2 to 3 mm. Its use in refrigeration systems for some years ago is a reality thanks to the human ability to made micro-scale systems. Some heat exchanger enterprises have some models developed specially for their use in automotive sector, cooling sector, and industrial refrigeration without having a deep knowledge of how these reduced geometries affect the most important parameters such as pressure drop and the heat transfer coefficient. To respond to this objective, an exhaustive literature review of the last two decades has been performed to determinate the state of the research. Multiple variables are recorded in this installation in order to calculate local heat transfer coefficient in two-phase condensing flow within mini-channels. Both pressure drop and heat transfer coefficient experimental measurements are compared to the previously mentioned models. Most of them capture the trend correctly but others fail predicting experimental data. As main contributions, this thesis provides new modelling tools for mini-channels condensing pressure drop and heat transfer coefficient calculation. A comparison of a recently developed refrigerant is also given in this thesis.

Relevant publication: Yes

- 36** Francisco Vera García; J. R. García- Cascales; ZAÍDA HERNÁNDEZ GUILLÉN. Atlas de Radiación Solar y Temperatura Ambiente en la Comunidad Autónoma de la Región de Murcia. Atlas de Radiación Solar y Temperatura Ambiente en la Comunidad Autónoma de la Región de Murcia. pp. 1 - 116. ARGEM - UPCT, 2008. ISBN 978-84-95781-97-0

Type of production: Scientific book or monograph

Format: Book

Degree of contribution: Author or co-author of entire book

Corresponding author: Yes

Relevant publication: Yes

- 37** Francisco Vera García; J. R. García- Cascales; ZAÍDA HERNÁNDEZ GUILLÉN. Atlas de Radiación Solar y Temperatura Ambiente en la Comunidad Autónoma de la Región de Murcia. Versión Extendida. Atlas de Radiación Solar y Temperatura Ambiente en la Comunidad Autónoma de la Región de Murcia. Versión Extendida. Repositorio Digital de Investigación - UPCT, 2008. Available on-line at: <<http://hdl.handle.net/10317/304>>.

Type of production: Scientific book or monograph

Format: Book

Degree of contribution: Author or co-author of educational publication

Corresponding author: Yes

Relevant publication: Yes

- 38** Francisco Vera García. Efecto de la recirculación del gas de escape en el proceso de la renovación de la carga en motores turbo-sobrealimentados. Tesis Doctoral. 1 - 1, pp. 1 - 330. (Spain): Universitat Politècnica de València, 15/03/2004. Available on-line at: <<https://dx.doi.org/10.4995/Thesis/10251/62276>>.

Type of production: Scientific book or monograph

Format: Book

Corresponding author: Yes

Relevant publication: Yes

- 39** Francisco Vera García. Efecto de la recirculación del gas de escape en el proceso de la renovación de la carga en motores turbo-sobrealimentados. Servicio de publicaciones de la UPV. Repositorio Digital de Investigación - UPV, 2004. Available on-line at: <<http://dx.doi.org/10.4995/Thesis/10251/62276>>. ISBN 8468878960



Type of production: Scientific book or monograph **Format:** Book
Degree of contribution: Author or co-author of entire book
Corresponding author: Yes
Relevant publication: Yes

- 40** Paula Hernández Baño; Angel Molina García; Francisco c Vera García. Renewable energy driven desalination processes with zero liquid discharge: System analysis and experimental assessment. Energy Conversion and Management. 358 - 121475, Oxford(Unted Kingdom): Elsevier, 08/04/2026. Available on-line at: <<https://doi.org/10.1016/j.enconman.2026.121475>>. ISSN 0196-8904

DOI: 10.1016/j.enconman.2026.121475

Type of production: Scientific paper
Position of signature: 3

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: No

Category: Science Edition - THERMODYNAMICS

Journal in the top 25%: Yes

No. of journals in the cat.: 2

Total no. authors: 3

Impact source: WOS (JCR)

Impact index in year of publication: 10.9

Position of publication:

- 41** Paloma González Costa; Paula Hernández Baño; Angel Molina García; Juan Tomás García Bermejo; Víctor Fabregat; Francisco c Vera García. An integrated renewable system for brackish water to achieve zero liquid discharge with nitrate reduction. Journal of Cleaner Production. 538 - 147196, Cartagena(Spain): Elsevier, 01/01/2026. Available on-line at: <<https://doi.org/10.1016/j.jclepro.2025.147196>>. ISSN 0959-6526

DOI: 10.1016/j.jclepro.2025.147196

Type of production: Scientific paper
Position of signature: 6

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: No

Total no. authors: 6

- 42** Paula Hernández Baño; Pablo Calleja Cayón; Francisco Vera García; Angel Molina García. Key Operational Variables in Mechanical Vapor Compression for Zero Liquid Discharge processes: Performance and efficiency evaluation. Sustainability. pp. 1 - 17. MDPI, 17/10/2025. Available on-line at: <<https://doi.org/10.3390/su17209212>>. ISSN 2071-1050

DOI: 10.3390/su17209212

Type of production: Scientific paper
Position of signature: 3

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: Yes

Category: ENVIRONMENTAL STUDIES

Journal in the top 25%: No

No. of journals in the cat.: 191

Total no. authors: 4

Impact source: WOS (JCR)

Impact index in year of publication: 3.3

Position of publication: 80

- 43** Calos Martínez Lara; Alejandro López Belchí; Francisco Vera García. Boiling and Condensing Two-Phase Frictional Pressure Drop Within Minichannel Tubes—Comparison and New Model Development Based on Experimental Measurements. Energies. 18 - 5010, pp. 1 - 28. MDPI, 20/09/2025. Available on-line at: <<https://doi.org/10.3390/en18185010>>. ISSN 1996-1073

DOI: 10.3390/en18185010

Type of production: Scientific paper
Position of signature: 3

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: Yes

Total no. authors: 3

Impact source: WOS (JCR)

Impact index in year of publication: 3.2

Impact source: SCOPUS (SJR)

Impact index in year of publication: 7.3

Position of publication: 15

Category: 2024 Impact Factor: 3.2 (Journal Citation Reports – Clarivate, 2025)

Journal in the top 25%: No

Category: 2024 CiteScore: 7.3 (Scopus, 2025); ranking 173/970 (Q1) in the "Electrical and Electronic Engineering" category; ranking 73/299 (Q1) in the "Energy Engineering and Power Technology" category

Journal in the top 25%: Yes

No. of journals in the cat.: 160

- 44** Pablo Calleja Cayón; Paula Hernández Baño; Angel Molina García; Francisco Vera García. Mechanical Vapour Compression Modelling and Assessment in a Zero-Liquid-Discharge Desalination System. Processes. 13 - 1963, pp. 1 - 22. MDPI, 21/06/2025. Available on-line at: <<https://doi.org/10.3390/pr13071963>>. ISSN 2227-9717

DOI: 10.3390/pr13071963

Type of production: Scientific paper

Position of signature: 4

Total no. authors: 4

Impact source: SCOPUS (SJR)

Impact index in year of publication: 2.8

Position of publication: 80

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: Yes

Category: Impact Factor: 2.8 5-Year JIF: 3.1 SJR (SCImago Journal Rank): 0.529 Quartile: Q2

Journal in the top 25%: No

No. of journals in the cat.: 170

- 45** Pablo CALLEJA CAYÓN; Ángel Molina García; Francisco Vera García. MECHANICAL VAPOR COMPRESSION AND RENEWABLE ENERGY SOURCE INTEGRATION INTO DESALINATION PROCESS LIFE-DESIROWS CASE EXAMPLE. THERMAL SCIENCE International Scientific Journal. 28 - 5, pp. 4395 - 4405. Riga(Serbia): VINCA INST NUCLEAR SCI, 23/11/2024. Available on-line at: <<https://doi.org/10.2298/TSCI2405395C>>.

DOI: 10.2298/TSCI2405395C

Type of production: Scientific paper

Position of signature: 3

Total no. authors: 3

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: No

- 46** Pablo CALLEJA CAYÓN; Ieva PAKERE; Francisco Vera García. Mechanical Vapor Compression Desalination Process: Approaches to Optimize Compressor's Consumption for Brine Valorization. Environmental and Climate Technologies. 28 - 1, pp. 477 - 489. Riga(Latvia): SCIENDO, 23/09/2024. Available on-line at: <<https://doi.org/10.2478/rtuect-2024-0037>>.

DOI: 10.2478/RTUECT-2024-0037

Type of production: Scientific paper

Position of signature: 3

Total no. authors: 3

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: No

- 47** Paula Hernández Baño; Angel Molina García; Francisco Vera García. Data-Monitoring Solution for Desalination Processes: Cooling Tower and Mechanical Vapor Compression Hybrid System. Sensors. 24 - 2909, MDPI, 02/05/2024. Available on-line at: <<https://doi.org/10.3390/s24092909>>.

DOI: 10.3390/s24092909

Type of production: Scientific paper

Position of signature: 3

Total no. authors: 3

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: No



- 48** María C. Bueso; Amanda Prado de Nicolás; Francisco Vera García; Angel Molina García. Cooling tower modeling based on machine learning approaches: Application to Zero Liquid Discharge in desalination processes. Applied Thermal Engineering. 122522, Elsevier, 24/01/2024. Available on-line at: <<https://doi.org/10.1016/j.applthermaleng.2024.122522>>. ISSN 1359-4311
DOI: 10.1016/j.applthermaleng.2024.122522
Type of production: Scientific paper
Position of signature: 3
Total no. authors: 4
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes
- 49** Amanda Prado de Nicolás; Angel Molina García; Francisco c Vera García. Performance evaluation and feasibility study of a cooling tower model for zero liquid discharge-desalination processes. Energy Conversion and Management. 297 - 117673, Elsevier, 01/12/2023. Available on-line at: <[10.1016/j.enconman.2023.117673](https://doi.org/10.1016/j.enconman.2023.117673)>. ISSN 01968904
DOI: 10.1016/j.enconman.2023.117673
Type of production: Scientific paper
Position of signature: 3
Total no. authors: 3
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: No
- 50** Amanda Prado de Nicolás; Angel Molina García; Juan Tomás García Bermejo; Francisco Vera García. Desalination, minimal and zero liquid discharge powered by renewable energy sources: Current status and future perspectives. Renewable and Sustainable Energy Reviews. 187 - 113733, Elsevier, 01/11/2023. Available on-line at: <[10.1016/j.rser.2023.113733](https://doi.org/10.1016/j.rser.2023.113733)>. ISSN 13640321
DOI: 10.1016/j.rser.2023.113733
Type of production: Scientific paper
Position of signature: 4
Total no. authors: 4
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: No
- 51** Amanda Prado de Nicolás; Angel Molina García; Juan Tomás García Bermejo; Francisco Vera García. Reject brine management: Denitrification and zero liquid discharge (ZLD)—Current status, challenges and future prospects. Journal of Cleaner Production. 381 - 1, pp. 135124. Elsevier, 25/12/2022. Available on-line at: <<https://doi.org/10.1016/j.jclepro.2022.135124>>. ISSN 0959-6526
DOI: 10.1016/j.jclepro.2022.135124
Type of production: Scientific paper
Position of signature: 4
Total no. authors: 4
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
- 52** Sofía Lorenz Fonfría; R. Mazón Hernández; J. R. García- Cascales; Francisco Vera García; A. S. Káiser; B. Zamora. ESTUDIO DE LA INFLUENCIA DE LA REFRIGERACIÓN CON AIRE DE FORMA NATURAL EN EL COMPORTAMIENTO DE INSTALACIONES FOTOVOLTAICAS AGROENERGÉTICAS EN CUBIERTAS. ERA SOLAR. 178, pp. 30 - 35. ERA-SOLAR IBEROAMERICA, 2014. ISSN 0212-4157
Type of production: Scientific paper
Format: Journal
Degree of contribution: Author or co-author of scientific or technical document for the general public
Corresponding author: Yes
- 53** Francisco Vera García; F Ramírez Rivera; J.R. García Cáscales; F Illán Gómez. Flow boiling heat transfer in small cross section area tubes with R134a and R32. International Heat Transfer Conference Digital Library. pp. 1 - 16. Begell House Inc, 2014. Available on-line at: <<http://10.1615/IHTC15.tpm.008958>>. ISBN 978-1-56700-421-2
Type of production: Scientific paper
Format: Journal



Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes

- 54** A. López Belchí; J.R. García Cáscales; Francisco Vera García; F Illán Gómez. R1234yf heat transfer coefficient during condensation in a mini-channel multiport tube. International Heat Transfer Conference Digital Library. pp. 1 - 16. Begell House Inc, 2014. Available on-line at: <<http://10.1615/IHTC15.tpm.008955>>. ISBN 978-1-56700-421-2

Type of production: Scientific paper **Format:** Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes

- 55** Francisco Vera García; A. López Belchí; F Ramírez Rivera; J.R. García Cáscales; F Illán Gómez. Two-phase flow pressure drop of R1234yf and R134a in a mini-channel multiport tube. International Heat Transfer Conference Digital Library. pp. 1 - 14. Begell House Inc, 2014. Available on-line at: <<http://10.1615/IHTC15.tpm.008956>>. ISBN 978-1-56700-421-2

Type of production: Scientific paper **Format:** Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes

- 56** Francisco Vera García; J. R. García- Cascales; R. Mazón Hernández; A. S. Káiser; B. Zamora. ESTUDIO COMPARATIVO DE LA INFLUENCIA DE LA TEMPERATURA DE PANELES FOTOVOLTAICOS TRABAJANDO EN UN HUERTO SOLAR FRENTE A VALORES OBTENIDOS EN BANCO DE ENSAYOS. ERA SOLAR. 173, pp. 50 - 55. ERA-SOLAR IBEROAMERICA, 2013. ISSN 0212-4157

Type of production: Scientific paper **Format:** Journal

Degree of contribution: Author or co-author of scientific or technical document for the general public
Corresponding author: Yes

- 57** Vera-García, F.; Garcia-Cascales, J.R.; González-Maciá J.; Corberán-Salvador, J.M.; Johnson, M.W.; Kohler, G.T.. On the analysis of compact heat exchangers working as evaporators. Applied Thermal Engineering. 30, ELSEVIER, 2010. ISSN 1359-4311

Type of production: Scientific paper **Format:** Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes

- 58** Francisco Vera García; José Pablo Delgado Marín; Brunella Restuccia. Sustitución de calderas convencionales por calderas de biomasa en piscinas climatizadas. Viabilidad técnico-económica. Industria Química. Equipos y plantas de proceso. 43 - febrero 2017, pp. 62 - 68. (Spain): InfoEdita, 2017. Available on-line at: <<http://www.infoedita.es/revista-industria-quimica>>. ISSN 2340-2113

Type of production: Popular science article **Format:** Journal

Degree of contribution: Author or co-author of scientific or technical document for the general public
Corresponding author: Yes

Relevant publication: No

- 59** Francisco Vera García; José Pablo Delgado Marín; Brunella Restuccia. Sustitución de calderas convencionales por calderas de biomasa en piscinas climatizadas. Viabilidad técnico-económica. Piscinas Hoy. octubre 2017, pp. 42 - 54. One Drop Mark & Services, S.L., 2017. Available on-line at: <www.piscinashoy.es - www.instalacionesdeportivashoy.es>.

Type of production: Popular science article **Format:** Journal

Degree of contribution: Author or co-author of scientific or technical document for the general public
Corresponding author: Yes

Relevant publication: No



- 60** Francisco Vera García. EL APRENDIZAJE COLABORATIVO EN LA DOCENCIA UNIVERSITARIA MODELOS EN LA UPCT. EL APRENDIZAJE COLABORATIVO EN LA DOCENCIA UNIVERSITARIA MODELOS EN LA UPCT. pp. 9 - 72. (Spain): UNIVERSIDAD POLITÉCNICA DE CARTAGENA, 2011. ISBN 978-84-694-0743-1
Type of production: Book chapter **Format:** Book
Degree of contribution: Author or co-author of entire book
Corresponding author: Yes
- 61** Francisco Vera García. EQUIPOS DOCENTES: UNA NUEVA APUESTA EN EL EEES. EQUIPOS DOCENTES: UNA NUEVA APUESTA EN EL EEES. pp. 191 - 210. (Spain): UNIVERSIDAD POLITÉCNICA DE CARTAGENA, 2011. ISBN 978-84-694-7472-3
Type of production: Book chapter **Format:** Book
Degree of contribution: Author or co-author of entire book
Corresponding author: Yes
- 62** J.R. García-Cascales; F. Vera-García; R.A. Otón-Martínez; A. Bentaib,; N. Meynet; J. Vendel; F., Gensdarmes; J-P Van-Dorsseleere; D. Perrault. Eulerian models for the study of dust mobilisation and combustion problems - Comparison with experimental results. IRSN. IRSN, 15/10/2010.
Type of production: Scientific-technical report **Format:** Scientific and technical document or report
Degree of contribution: Author or co-author of reserved scientific or technical document
Corresponding author: Yes
- 63** J.R. García-Cascales; F. Vera-García; Zueco-Jordán, J.. Additional study on the closer laws used in the characterisation of gas and particle mixtures and the validity of the model, IRSN Rapport. IRSN. IRSN, 2010.
Type of production: Scientific-technical report **Format:** Scientific and technical document or report
Degree of contribution: Author or co-author of reserved scientific or technical document
Corresponding author: Yes
- 64** J.R. García-Cascales; F. Vera-García; Zueco-Jordán, J.. Study of the closure laws needed for the characterisation of the phase interaction in gas and particle mixtures. Implementation in CAST3M. IRSN Rapport. IRSN, 2010.
Type of production: Scientific-technical report **Format:** Scientific and technical document or report
Degree of contribution: Author or co-author of reserved scientific or technical document
Corresponding author: Yes
- 65** J.R. García-Cascales; F. Vera-García; Zueco-Jordán, J.. Modelling of Dust Mobilisation Problems with CAST3M, IRSN Rapport DSR/SAGR nº8. IRSN Rapport. IRSN, 03/10/2008.
Type of production: Scientific-technical report **Format:** Scientific and technical document or report
Degree of contribution: Author or co-author of reserved scientific or technical document
Corresponding author: Yes
- 66** J.R. García-Cascales; F. Vera-García; J.Zueco. Modelling of Dust Mobilisation Problems with CAST3M, IRSN Rapport DSR/SAGR nº8. IRSN. IRSN, 03/09/2008.
Type of production: Scientific-technical report **Format:** Scientific and technical document or report
Degree of contribution: Author or co-author of reserved scientific or technical document
Corresponding author: Yes

Works presented at national or international conferences

- 1** **Title of the work:** Experimental Evaluation of a Hybrid Thermal Technology for Zero Liquid Discharge Applications with Integration of Renewable Energy Sources
Name of the conference: X Jornadas Doctorales UMU-UPCT-CMN 2025
Corresponding author: No
City of event: Murcia, Murcia, Región de, Spain
Date of event: 23/06/2025
End date: 25/06/2025
Organising entity: Universidad de Murcia **Type of entity:** University
City organizing entity: Murcia, Spain
Paula Hernández Baño; Francisco Vera García; Ángel Molina García. "Book of Abstracts of X Jornadas Doctorales UMU-UPCT-CMN 2025".
- 2** **Title of the work:** Mechanical vapor compression desalination process: approaches to optimize compressor's consumption for brine valorization
Name of the conference: XVII International Scientific Conference of Environmental and Climate Technologies CONECT 2024
Corresponding author: Yes
City of event: Riga, Latvia
Date of event: 15/05/2024
End date: 17/05/2024
Organising entity: Riga Technical University **Type of entity:** University
City organizing entity: Riga, Latvia
Pablo Calleja Cayón; Ieva Pakere; Francisco Vera García. "Book of Abstracts of XVII CONECT".
- 3** **Title of the work:** Mechanical Vapor Compression and Renewable Energy Source Integration into Desalination Process: Life Desirows Case Example
Name of the conference: 18th SDEWES. Conference in Sustainable Development of Energy, Water and Environment Systems
Corresponding author: Yes
City of event: Dubrovnik, Croatia
Date of event: 24/09/2023
Organising entity: University of Zagreb & University of Lisbon
City organizing entity: Zagreb, Croatia
Pablo Calleja Cayón; Ángel Molina García; Francisco Vera García. "Book of Abstracts of 18th SDEWES Conference".
- 4** **Title of the work:** BRINE CONCENTRATION WITH COOLING TOWER EVAPORATION FOR A ZERO LIQUID DISCHARGE SYSTEM. TRNSYS MODELLING AND EXPERIMENTAL RESULTS
Name of the conference: 16th INTERNATIONAL CONFERENCE ON HEAT TRANSFER, FLUID MECHANICS AND THERMODYNAMICS
Corresponding author: Yes
City of event: Amsterdam, Holland
Date of event: 08/08/2022
End date: 12/08/2022
Organising entity: Applied Thermal Engineering
Francisco Vera García; Pablo Calleja Cayón; Ángel Molina García; Amanda Prado de Nicolas; Juan Tomás García Bermejo. "Proceedings of 16th INTERNATIONAL CONFERENCE ON HEAT TRANSFER, FLUID MECHANICS AND THERMODYNAMICS".



- 5** **Title of the work:** DEVELOPMENT OF AN ENERGY MODEL OF A LARGE-SIZED REFRIGERATED INDUSTRIAL WAREHOUSE FOR ENERGY EFFICIENCY IMPROVEMENTS USING TRNSYS®
Name of the conference: 26 th International Congress on Project Management and Engineering
Corresponding author: Yes
City of event: Terrasa, Spain
Date of event: 05/07/2022
End date: 08/07/2022
Organising entity: AEIPRO **Type of entity:** Business
José Javier Rubio Rubio; Francisco Vera García; Eloy Hontoria Hernández; Alejandro López Belchí.
"Proceedings from the International Congress on Project Management and Engineering".
- 6** **Title of the work:** MODELLING AND ANALYSIS OF A BRINE REMOVAL EVAPORATION SYSTEM BASED ON MECHANICAL VAPOUR COMPRESSION PROCESS
Name of the conference: 26 th International Congress on Project Management and Engineering
Corresponding author: Yes
City of event: Terrasa, Spain
Date of event: 05/07/2022
End date: 08/07/2022
Organising entity: AEIPRO **Type of entity:** Business
Pablo Calleja Cayón; Francisco Vera García. "Proceedings from the International Congress on Project Management and Engineering".
- 7** **Title of the work:** STUDY OF THE INFLUENCE OF THE LOADING AND UNLOADING PROCESS ON THE ENERGY DEMAND OF A REFRIGERATED WAREHOUSE
Name of the conference: 26 th International Congress on Project Management and Engineering
Corresponding author: Yes
City of event: Terrasa, Spain
Date of event: 05/07/2022
End date: 08/07/2022
Organising entity: AEIPRO **Type of entity:** Business
José Javier Rubio Rubio; Francisco Vera García; Eloy Hontoria Hernández; Alejandro López Belchí.
"Proceedings from the International Congress on Project Management and Engineering".
- 8** **Title of the work:** Sustainable Zero Liquid Discharge for Desalination and Denitrification Processes: Desirows Life European Project
Name of the conference: 2022 IEEE 22nd annual Conference of the International Conference on Environmental and Electrical Engineering
Corresponding author: No
City of event: Praga, Czech Republic
Date of event: 28/06/2022
End date: 16/07/2021
Organising entity: IEEE- Institute of Electrical and electronics Engineers
Type of contribution: Scientific book or monograph
A. Prado-Nicolás; A. Molina-García; F. Vera-García; J. T. García. "2022 IEEE 22nd annual Conference of the International Conference on Environmental and Electrical Engineering". pp. 1 - 7. 2021.
- 9** **Title of the work:** Experimental analysis of the thermal comfort provided by an electrical heater and a heat pump
Name of the conference: 8th European Thermal Sciences Conference (EUROTHERM 2021)
Corresponding author: No
Date of event: 20/09/2021



End date: 22/09/2021

Type of contribution: Scientific book or monograph

J R García-Cascales; F Illán-Gómez; F J S Velasco; Francisco Vera García; A Dengra Vera; Fernando García. "8th European Thermal Sciences Conference (EUROTHERM 2021)". pp. 1 - 7. 2021.

- 10** **Title of the work:** Brackish Desalination and Denitrification for Sustainable and Renewable Irrigation: Desirows Life European Project
Name of the conference: 2021 IEEE 15th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG)
Corresponding author: No
City of event: Italy
Date of event: 14/07/2021
End date: 16/07/2021
Organising entity: Institute of Electrical and electronics Engineers
Type of contribution: Scientific book or monograph
A. Molina-García; C. Martínez; J. López-Castellanos; J. T. García; F. Vera-García; E. Celdrán-Uriarte. "2021 IEEE 15th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG)". pp. 1 - 7. 2021.
- 11** **Title of the work:** Evaporadores de alta eficiencia con geometría minicanal: posible adaptación a actuales sistemas de armas (DESEID-2020-49)
Name of the conference: VIII Congreso Nacional de i+d en Defensa y Seguridad
Corresponding author: No
City of event: Zaragoza, Aragón, Spain
Date of event: 24/11/2020
End date: 26/11/2020
Organising entity: Ministerio de Defensa **Type of entity:** R&D Centre
City organizing entity: Zaragoza, Aragón, Spain
Carlos Martínez Lara; Francisco Vera García; Alejandro López Belch. "VIII Congreso Nacional de i+d en Defensa y Seguridad Libro de Resúmenes".
- 12** **Title of the work:** DESARROLLO DE UN MODELO DE VALORES MEDIOS Y DE UN MODELO FÍSICO DE UN MOTOR DIÉSEL INDUSTRIAL CON SIMCENTER AMESIM ®
Name of the conference: V ENCUENTRO DE INGENIERÍA DE LA ENERGÍA DEL CAMPUS MARE NOSTRUM
Corresponding author: No
City of event: Murcia, Murcia, Región de, Spain
Date of event: 23/11/2020
End date: 26/11/2020
Organising entity: Universidad de Murcia **Type of entity:** University
Javier Martínez Escondrillas; Daniel Albaladejo Hernández; Francisco Vera García; José Hernández Grau. "Actas en Congreso".
- 13** **Title of the work:** SISTEMA DE EVAPORACIÓN DE SALMUERA MEDIANTE TORRE DE REFRIGERACIÓN
Name of the conference: V ENCUENTRO DE INGENIERÍA DE LA ENERGÍA DEL CAMPUS MARE NOSTRUM
Corresponding author: No
City of event: Murcia, Murcia, Región de, Spain
Date of event: 23/11/2020
End date: 26/11/2020
Organising entity: Universidad de Murcia **Type of entity:** University



Helena Gómez García; Francisco Vera García. "Actas en Congreso".

- 14 Title of the work:** ANÁLISIS DE LA INFLUENCIA DE LA APERTURA Y CIERRE DE LOS MUELLES DE CARGA Y DESCARGA EN LA DEMANDA ENERGÉTICA FRIGORÍFICA DE UNA NAVE INDUSTRIAL DE GRANDES DIMENSIONES PARA PRODUCTOS HORTOFRUTÍCOLAS

Name of the conference: X CONGRESO IBÉRICO VIII CONGRESO IBEROAMERICANO CIENCIAS Y TÉCNICAS DEL FRÍO

Corresponding author: Yes

City of event: PAMPLONA, Navarra, Comunidad Foral de, Spain

Date of event: 11/11/2020

End date: 12/11/2020

Organising entity: Universidad Pública de Navarra **Type of entity:** University

City organizing entity: PAMPLONA, Navarra, Comunidad Foral de, Spain

Alejandro López Belchí; José Javier Rubio Rubio; Francisco Vera García; Eloy Hontoria Hernández. "PROCEEDINGS BOOK CYTEF 2020 ISBN: 978-2-36215-043-2".

- 15 Title of the work:** OPTIMIZATION OF A COOLING SYSTEM OF A LARGE-SIZED INDUSTRIAL WAREHOUSE USED FOR STORING PERISHABLE FOOD WITH WATER-GLYCOL MIXTURE AS COOLANT

Name of the conference: X CONGRESO IBÉRICO VIII CONGRESO IBEROAMERICANO CIENCIAS Y TÉCNICAS DEL FRÍO

Corresponding author: Yes

City of event: PAMPLONA, Navarra, Comunidad Foral de, Spain

Date of event: 11/11/2020

End date: 12/11/2020

Organising entity: Universidad Pública de Navarra **Type of entity:** University

City organizing entity: PAMPLONA, Navarra, Comunidad Foral de, Spain

Alejandro López Belchí; José Javier Rubio Rubio; Francisco Vera García; Eloy Hontoria Hernández. "PROCEEDINGS BOOK CYTEF 2020 ISBN: 978-2-36215-043-2".

- 16 Title of the work:** Official master degree in renewable energies universidad politecnica de cartagena: a decade revision under the european higher education area (EHEA).

Name of the conference: 23rd International Congress on Project Management and Engineering

Corresponding author: No

City of event: Málaga, Andalucía, Spain

Date of event: 10/07/2019

End date: 12/07/2019

Organising entity: AEIPRO- IPMA

Type of entity: Associations and Groups

Ángel Molina García; Antonio Urbina Yeregui; José Ramón García Cascales; F. Vera-García; María del Socorro García Cascales. "<http://dspace.aepro.com/xmlui/handle/123456789/2380>". Stuttgart University,

- 17 Title of the work:** Study of the influence of different configurations in the control of contaminating emissions of a motorcycle

Name of the conference: I National and II International Engineering Thermodynamics Congress

Corresponding author: Yes

City of event: Albacete, Castilla-La Mancha, Spain

Date of event: 12/06/2019

End date: 28/06/2019

Organising entity: Universidad de Castilla-La Mancha

Type of entity: University

Daniel Albaladejo Hernández; F. Vera-García; José Hernández Grau. "<http://www.11cnit.uclm.es/22532/detail/xi-congreso-nacional-y-ii-internacional-de-ingenieria-termodinamica-11-cnit.html>". Stuttgart University,



- 18 Title of the work:** Technology to convert a Diesel engine to Dual Engine
Name of the conference: 9th NORTH AFRICAN PETROLEUM EXHIBITION AND CONFERENCE. 9TH NAPEC
Corresponding author: Yes
City of event: Orán, Argelia, Algeria
Date of event: 09/03/2019
End date: 13/03/2019
F. Vera-García. "<http://www.napec-dz.com/ConferencesProgram2019.aspx?lg=fr#day3>". Stuttgart University,
- 19 Title of the work:** 0 Waste & 0 Energy 4 Cleaning Water.
Name of the conference: II INTERNATIONAL SYMPOSIUM ENVIRONMENTAL PROCESS ENGINEERING AND TECHNOLOGIES.
City of event: Stuttgart, Germany,
Date of event: 22/11/2018
F. Vera-García. "<https://www.wasteclub.net/copy-of-international-symposium-201/>". Stuttgart University,
- 20 Title of the work:** Aspectos a tener en cuenta para la creación de dobles titulaciones en máster con universidades extranjeras dentro del EEES. Exposición de un ejemplo.
Name of the conference: VII CONGRESO INTERNACIONAL MULTIDISCIPLINAR DE INVESTIGACIÓN EDUCATIVA. #CIMIE18. 2018.
City of event: Zaragoza, Spain,
Date of event: 04/07/2018
F. Vera-García, J.A. Moreno Nicolás; A. Guillamón Frutos. "Libro de actas CIMIE18 de AMIE licenciado bajo Creative Commons 4.0 International License. Disponible en <http://amieedu.org/actascimie18/> Editorial."
- 21 Title of the work:** Uso de software especializado en docencia para la enseñanza de modelización y comportamiento de los motores de combustión interna.
Name of the conference: VII CONGRESO INTERNACIONAL MULTIDISCIPLINAR DE INVESTIGACIÓN EDUCATIVA. #CIMIE18. 2018.
City of event: Zaragoza, Spain,
Date of event: 04/07/2018
D. Albaladejo Hernández; F. Vera-García; J. Hernández Grau. "Libro de actas CIMIE18 de AMIE licenciado bajo Creative Commons 4.0 International License. Disponible en <http://amieedu.org/actascimie18/> Editorial."
- 22 Title of the work:** Ajuste de un modelo termodinámico unidimensional para simulación de fallos de motor diésel marino
Name of the conference: IV Congreso Nacional de I+D en Defensa y Seguridad
City of event: San Javier, España,
Date of event: 16/11/2016
Pagán Rubio, Jose Antonio; Muñoz Cámara, José; Vera-García, Francisco; Hernández Grau, Jose. "Actas del congreso."
- 23 Title of the work:** Desarrollo de un modelo termodinámico cerodimensional para determinación en tiempo real de las prestaciones de motor diésel marino
Name of the conference: IV Congreso Nacional de I+D en Defensa y Seguridad
City of event: San Javier, España,
Date of event: 16/11/2016
Pagán Rubio, Jose Antonio; Muñoz Cámara, José; Vera-García, Francisco; Hernández Grau, Jose. "Actas del congreso."



- 24** **Title of the work:** APLICACIÓN DEL MODELADO DE MOTORES DIÉSEL A UN SISTEMA DE DIGNOSIS EN TIEMPO REAL
Name of the conference: III Encuentro de Ingeniería de la Energía del Campus Mare Nostrum
City of event: Murcia, España,
Date of event: 27/09/2016
MUÑOZ CÁMARA, José; PAGÁN RUBIO, Jose Antonio; VERA GARCÍA, Francisco. "Actas del congreso."
- 25** **Title of the work:** Estudio de la viabilidad técnica y económica para la optimización de los sistemas térmicos en piscinas climatizadas en Murcia
Name of the conference: III Encuentro de Ingeniería de la Energía del Campus Mare Nostrum
City of event: Murcia, España,
Date of event: 27/09/2016
RESTUCCIA, Brunella; VERA GARCÍA, Francisco; DELGADO MARIN, José Pablo LORENZ FONFRIA, Sofia. "Actas del congreso."
- 26** **Title of the work:** Optimización de un sistema de escape para una motocicleta bajo la normativa de emisiones Euro3
Name of the conference: III Encuentro de Ingeniería de la Energía del Campus Mare Nostrum
City of event: Murcia, España,
Date of event: 27/09/2016
Daniel Albaladejo Hernández; Miguel Ángel González Pozo; José Hernández Grau; Francisco Vera García. "Actas del congreso."
- 27** **Title of the work:** Caída de Presión y Transferencia de Calor Durante el Proceso de Ebullición Saturada en el Interior de un Tubo Multipuerto Con Minicanales.
Name of the conference: CYTEF-2016. VIII Congreso Ibérico y VI Congreso Iberoamericano de Ciencias y Técnicas del Frío
City of event: Coimbra, Portugal,
Date of event: 03/05/2016
F. A. Ramírez-Rivera; F. Vera-García; A. López-Belchí. "Actas del congreso."
- 28** **Title of the work:** Medidas Experimentales de Condensación de R32 en Minicanal
Name of the conference: CYTEF-2016. VIII Congreso Ibérico y VI Congreso Iberoamericano de Ciencias y Técnicas del Frío
City of event: Coimbra, Portugal,
Date of event: 03/05/2016
A. López Belchí; J.R. García Cascales; F. Illán Gómez; F. Vera García. "Actas del congreso."
- 29** **Title of the work:** Comparative study of the use of compact heat exchanger or a fin-and-tube coil in a heat pump.
Name of the conference: ICR2015 : The 24th IIR International Congress of Refrigeration
City of event: Yokohama, Japón,
Date of event: 16/08/2015
García-Cascales J. R.; Hidalgo-Mompeán F.; Ramírez-Basalo M. A.; Illán-Goméz F.; Vera-García F. "Actas del congreso."
- 30** **Title of the work:** Evaluación del potencial térmico del sistema de refrigeración de una instalación de paneles fotovoltaicos aplicado a la regeneración en ruedas desecantes.
Name of the conference: 9º Congreso Nacional de Ingeniería Termodinámica 2015
City of event: Cartagena, España,
Date of event: 03/06/2015



González Teruel, Juan Domingo; Viedma Robles, Antonio; García Cascales, Jose Ramón; Vera García, Francisco; Mazón Hernández, Rocío; Sánchez Káiser, Antonio. "Actas del congreso."

- 31 Title of the work:** Modelado cuasiestacionario de una máquina frigorífica por compresión simple mediante TRNSYS.
Name of the conference: 9º Congreso Nacional de Ingeniería Termodinámica 2015
City of event: Cartagena, España,
Date of event: 03/06/2015
J. Muñoz-Cámara; F. Vera García. "Actas del congreso."
- 32 Title of the work:** Proceso obtención medidas experimentales y tratamiento de datos para modelado motor diesel marino.
Name of the conference: 9º Congreso Nacional de Ingeniería Termodinámica 2015
City of event: Cartagena, España,
Date of event: 03/06/2015
Pagán Rubio, José Antonio; Vera García, Francisco; Hernandez Grau, José. "Actas del congreso."
- 33 Title of the work:** A ONE-DIMENSIONAL CODE FOR THE ANALYSIS OF INTERNAL BALLISTIC PROBLEMS
Name of the conference: 28th International Symposium on Ballistics. Atlanta USA
City of event: Atlanta., EEUU, United States of America
Date of event: 22/09/2014
End date: 26/09/2014
Publication in conference proceedings: Yes
G. Monreal-González; R. A. Otón-Martínez; F. J. S. Velasco; J. R. García-Cascales; F. Vera-García; Bullón-Sánchez C.; D. Moratilla-Fernández. "Proceedings Paper". ISBN 978-1-60595-149-2
WOS: WOS: 000350969700086
- 34 Title of the work:** FLOW BOILING HEAT TRANSFER IN SMALL CROSS SECTION AREA TUBES WITH R134A AND R32
Name of the conference: International Heat Transfer Conference, IHTC-15
City of event: Kyoto, Japan, Japan
Date of event: 10/08/2014
End date: 10/08/2014
F. Ramirez-Rivera; F. Vera-García; J.R. García-Cascales; F. Illán-Gómez. "Proceedings of the 15th International Heat Transfer Conference, IHTC15- 8958". IHTC-since 1951,
- 35 Title of the work:** R1234YF HEAT TRANSFER COEFFICIENT DURING CONDENSATION IN A MINI-CHANNEL MULTI-PORT TUBE
Name of the conference: International Heat Transfer Conference, IHTC-15
Corresponding author: Yes
City of event: Kyoto, Japan, Japan
Date of event: 10/08/2014
End date: 15/08/2014
A. López-Belchí; J.R. García-Cascales; F. Vera-García; F. Illán-Gómez. "Proceedings of the 15th International Heat Transfer Conference, IHTC15- 8955 Editorial: IHTC-since 1951". IHTC-since 1951,
- 36 Title of the work:** TWO-PHASE FLOW PRESSURE DROP OF R1234yf AND R134a IN A MINI-CHANNEL MULTI-PORT TUBE
Name of the conference: International Heat Transfer Conference, IHTC-15
City of event: Kyoto, Japan,
Date of event: 10/08/2014



End date: 15/08/2014

F. Vera-García; A. López-Belchí; F. Ramírez-Rivera; J.R. García-Cascales; F. Illán-Gómez. "Proceedings of the 15th International Heat Transfer Conference, IHTC-8956". IHTC-since 1951,

- 37 Title of the work:** R32 Heat Transfer Coefficient During Condensation In A Mini-Channel Multiport Tube
Name of the conference: 2014. 15th International Refrigeration and Air Conditioning Conference at Purdue, July -17, 2014
City of event: Laffayette, United States of America
Date of event: 12/07/2014
End date: 17/07/2014
Organising entity: Purdue University **Type of entity:** University
City organizing entity: Laffayette, United States of America
A. López Belchí; F. Illán Gómez; J.R. García Cascales; F. Vera García. "Actas en Congreso Internacional International Refrigeration and Air Conditioning Conference at Purdue".
- 38 Title of the work:** FLOW BOILING HEAT TRANSFER AND PRESSURE DROP IN A MULTIPOINT TUBE USING R134a AND R32
Name of the conference: CYTEF-2014. VII Congreso Ibérico y V Congreso Iberoamericano de Ciencias y Técnicas del Frío
Corresponding author: Yes
City of event: Tarragona, Cataluña, Spain
Date of event: 18/06/2014
End date: 20/06/2014
Organising entity: Universitat Rovira i Virgili **Type of entity:** University
F. Ramírez-Rivera; F. Vera-García; J.R. García-Cascales; F. Illán-Gómez. "Actas del congreso Editorial: CYTEF-IIR".
- 39 Title of the work:** Propane and Difluoromethane Heat Transfer Coefficient and Pressure Drop
Name of the conference: CYTEF-2014. VII Congreso Ibérico y V Congreso Iberoamericano de Ciencias y Técnicas del Frío
City of event: Tarragona, Cataluña, Spain
Date of event: 18/06/2014
End date: 20/06/2014
A. López Belchí*; J.R. García Cascales; F. Illán Gómez and F. Vera García. "Actas del congreso Editorial: CYTEF-IIR".
- 40 Title of the work:** Numerical characterisation of the combustion of pyrotechnical mixtures and propellants
Name of the conference: International Pyrotechnics Seminar
City of event: Valencia, Spain,
Date of event: 20/06/2013
End date: 22/06/2013
R.A. Otón Martínez; J.R. García-Cascales; F.J. Sánchez Velasco; G. Monreal-González; F. Vera-García; C. Bullón-Sánchez; D. Fernández-Moratilla; J. Ramírez-Fernández. "Proceedings of International Pyrotechnics Seminar".
- 41 Title of the work:** Ensayo y modelado de una bomba de calor aire-agua funcionando con R134a
Name of the conference: 8º Congreso Nacional de Ingeniería Termodinámica
City of event: Burgos, Spain,
Date of event: 19/06/2013
End date: 22/06/2013
F. Hidalgo-Mompeán; A. López-Belchí; J.R. García-Cascales; F. Illán-Gómez; F. Vera-García. "Actas del Congreso Nacional de Ingeniería Termodinámica".



- 42 Title of the work:** Implementación de una red neuronal para la predicción de la caída de presión en minicanales
Name of the conference: 8º Congreso Nacional de Ingeniería Termodinámica
City of event: Burgos, Spain,
Date of event: 19/06/2013
End date: 22/06/2013
A. López-Belchí; Ramírez Rivera; F.A. J.R. García-Cascales; F. Vera-García; F. Illán-Gómez; Cano Izquierdo; J.M."Actas del Congreso 8º Congreso Nacional de Ingeniería Termodinámica".
- 43 Title of the work:** DEVELOPMENT OF A CFD CODE FOR REALISTIC ANALYSIS OF TWO-PHASE GAS AND DUST DETONATION INSIDE ITER FACILITY
Name of the conference: 2012 EUROPEAN NUCLEAR CONFERENCE
City of event: MANCHESTER, UK TIPO DE CONGRESO: CONGRESO INTERNACIONAL,
Date of event: 09/12/2012
OTÓN MARTÍNEZ, RAMÓN ANTONIO; GARCÍA CASCALES, JOSÉ RAMÓN; VERA GARCÍA, FRANCISCO; SÁNCHEZ VELASCO, FRANCISCO JAVIER; BENTAIB , AHMED; MEYNET , NICOLAS; BLEYER , ALEXANDRE. "Actas del Congreso".
- 44 Title of the work:** TWO PHASE PRESSURE DROP WITH NON UNIFORM DISTRIBUTION
Name of the conference: 3rd IIR Workshop on Refrigerant Charge Reduction in Refrigerating Systems
Corresponding author: Yes
City of event: Valencia,
Date of event: 25/10/2012
End date: 26/10/2012
López Belchí, A.; Vera-García, F.; García-Cascales, J.R.; Del Col, D."Actas del Congreso Editorial: I.S.B.N."
- 45 Title of the work:** DUST EXPLOSION HAZARD IN ITER: EVALUATION MOBILIZED DUST FRACTION
Name of the conference: 27TH SYMPOSIUM ON FUSION TECHNOLOGY
City of event: LIEGE, BÉLGICA TIPO DE CONGRESO: CONGRESO INTERNACIONAL,
Date of event: 24/09/2012
BENTAIB , AHMED; MEYNET , NICOLAS; BLEYER , ALEXANDRE; GARCÍA CASCALES, JOSÉ RAMÓN; OTÓN MARTÍNEZ, RAMÓN ANTONIO; VERA GARCÍA, FRANCISCO; AMAT PLATA, SERGIO; SÁNCHEZ VELASCO, FRANCISCO JAVIER. "Actas del Congreso".
- 46 Title of the work:** SOME ADVANCES IN THE CHARACTERIZATION OF GAS AND SOLID MIXTURES UNDER LOW PRESSURE CONDITIONS
Name of the conference: 10TH INTERNATIONAL CONFERENCE OF NUMERICAL ANALYSIS AND APPLIED MATHEMATICS
City of event: KOS, GRECIA TIPO DE CONGRESO: CONGRESO INTERNACIONAL,
Date of event: 19/09/2012
GARCÍA CASCALES, JOSÉ RAMÓN; OTÓN MARTÍNEZ, RAMÓN ANTONIO; VERA GARCÍA, FRANCISCO; AMAT PLATA, SERGIO; SÁNCHEZ VELASCO, FRANCISCO JAVIER; BENTAIB , AHMED; MEYNET , NICOLAS; BLEYER , ALEXANDRE. "Actas del Congreso".
- 47 Title of the work:** A TURBULENT MODEL FOR THE STUDY OF DUST MOBILISATION IN CLOSED ENCLOSURES
Name of the conference: EUROPEAN AEROSOL CONFERENCE
City of event: GRANADA, ESPAÑA TIPO DE CONGRESO: CONGRESO INTERNACIONAL,
Date of event: 02/09/2012



García Cascales, José Ramón; Sánchez Velasco, Francisco Javier; Otón Martínez, Ramón Antonio; Vera García, Francisco; Bentaib, Ahmed; Meynet, Nicolas. "Actas del Congreso".

48 Title of the work: ESTUDIO COMPARATIVO DE LA INFLUENCIA DE LA TEMPERATURA DE PANELES FOTOVOLTAICOS TRABAJANDO EN UN HUERTO SOLAR FRENTE A VALORES OBTENIDOS EN BANCO DE ENSAYOS

Name of the conference: XV CONGRESO IBÉRICO Y X IBEROAMERICANO DE ENERGÍA SOLAR. CIES2012

Corresponding author: Yes

City of event: Vigo,

Date of event: 20/06/2012

End date: 22/06/2012

Vera-García F.; García-Cascales J.R.; Mazón-Hernández R.; Zamora-Parra B.; Sánchez Kaiser A."Actas del Congreso". ISBN 978-84-615-9055-1

49 Title of the work: ESTUDIO DE LA INFLUENCIA DE LA REFRIGERACIÓN CON AIRE DE FORMA NATURAL EN EL COMPORTAMIENTO DE INSTALACIONES FOTOVOLTAICAS AGROENERGÉTICAS EN CUBIERTAS

Name of the conference: XV CONGRESO IBÉRICO Y X IBEROAMERICANO DE ENERGÍA SOLAR. CIES2012

Corresponding author: Yes

City of event: Vigo, Galicia, Spain

Date of event: 20/06/2012

End date: 22/06/2012

Lorenz-Fonfría S.; Mazón-Hernández R.; García-Cascales J.R.; Vera-García F.; Sánchez Kaiser A.; Zamora-Parra B."Actas del Congreso". ISBN 978-84-615-9055-1

50 Title of the work: Caída de presión en minicanales operando con r134a en monofásico y procesos de condensación

Name of the conference: CYTEF-2012. VI Congreso Ibérico y VI Congreso Iberoamericano de Ciencias y Técnicas del Frío

City of event: Madrid, España,

Date of event: 22/02/2012

F. Vera-García; J.R. García Cascales; A. López Belchí; F.A. Ramirez-Rivera. "Actas del congreso".

51 Title of the work: Sistema de control de una instalación experimental de estudio de la caída de presión y del coeficiente de transferencia de calor en el interior de minicanales.

Name of the conference: CYTEF-2012. VI Congreso Ibérico y VI Congreso Iberoamericano de Ciencias y Técnicas del Frío

City of event: Madrid, España,

Date of event: 22/02/2012

A. López Belchí; F. Vera-García; J.R. García Cascales. "Actas del congreso".

52 Title of the work: Desarrollo de un código para el estudio de problemas que involucren la movilización de partículas en el ámbito del ITER

Name of the conference: 37 Reunión Anual de la Sociedad Nuclear Española

City of event: Burgos,

Date of event: 28/09/2011

JR García?Cascales; F Vera?García; RA Otón?Martínez. "Actas del congreso".



- 53** **Title of the work:** Analytical model and experimental validation of the heat transfer and the induced flow in a PV cooling duct in environmental conditions
Name of the conference: ISES Solar World Congress
City of event: Kassel, Alemania,
Date of event: 28/08/2011
R. Mazón; A.S. Káiser; B. Zamora; J.R. García; F. Vera. "Actas del congreso."
- 54** **Title of the work:** Single and two-phase pressure drop in minichannels using R134a as working fluid
Name of the conference: 23rd International Congress of Refrigeration
City of event: Praga, República Checa,
Date of event: 21/08/2011
A. López Belchí; F. Vera-García; J.R. García Cascales. "Actas del congreso."
- 55** **Title of the work:** Analysis of combustion problems in highly dilute dust and gas mixtures
Name of the conference: 23rd ICDERS
City of event: Irvine,
Date of event: 24/07/2011
R.A. Otón Martínez; J.R. García Cascales¹; F. Vera García; A. Bentaib; N. Maynet. "Actas del congreso."
- 56** **Title of the work:** Analysis of mobilisation and explosion problems in gas and dust mixtures
Name of the conference: 23rd ICDERS
City of event: Irvine,
Date of event: 24/07/2011
JR García-Cascales; F Vera García; R Otón-Martínez; A Bentaib; N Meynet. "Actas del congreso."
- 57** **Title of the work:** LAS TÉCNICAS DE APRENDIZAJE GRUPAL COMO PARTE O FUNDAMENTO DE LAS ASIGNATURAS DE GRADO: PROPUESTAS DEL EQUIPO DOCENTE DE TRABAJO COLABORATIVO DE LA UPCT
Name of the conference: Congreso Internacional de Innovación Docente Universidad Politécnica de Cartagena
City of event: Cartagena, Spain,
Date of event: 06/07/2011
Aznar MA; Briones AJ; Garcia ME; Hermosilla FJ; Ilán F; Luna JP; Vera F. "Actas del congreso."
- 58** **Title of the work:** Proceso para la obtención de los coeficientes de transmisión de calor y pérdida de carga en procesos de evaporación dentro de tubos multipuerto con minicanales
Name of the conference: Congreso Nacional de Ingeniería Termodinámica 2011
City of event: Bilbao, España,
Date of event: 15/06/2011
F. Vera García; J.R. García Cascales; A. Lopez Belchí; F. Ramirez Rivera. "Actas del congreso."
- 59** **Title of the work:** Analytical model and experimental validation of the heat transfer and the induced flow in a PV cooling duct in environmental conditions
Name of the conference: World Renewable Energy Congress (WREC)
City of event: Linköping, Suecia,
Date of event: 08/05/2011
R. Mazón; A.S. Káiser; B. Zamora; J.R. García; F. Vera. "Actas del congreso."
- 60** **Title of the work:** Eulerian models for the study of dust mobilisation and combustion problems - comparison with experimental results
Name of the conference: 26th Symposium on Fusion Technology



City of event: Oporto, Portugal,

Date of event: 27/09/2010

J.R. García-Cascales; F. Vera-García; R.A. Otón-Martínez; A. Bentaib; N. Meynet; J. Vendel; F. Gensdarmes; J-P Van-Dorsselaere; D. Perrault. "Actas del congreso."

61 Title of the work: Análisis de la evaluación de problemas abiertos en asignaturas de "Máquinas y Motores Térmicos"

Name of the conference: VI Congreso Internacional Docencia Universitaria en Innovación 2010.

City of event: Barcelona, Spain,

Date of event: 30/06/2010

F. Vera-García; J. Zueco-Jordán; J.R. García-Cascales. "VI CIDUI Nuevos Espacios de Calidad en la Educación Superior.. Editorial.". ISBN 978-84-8458-324-0

62 Title of the work: Descripción de la experiencia en la participación de profesores dentro de equipos multidisciplinares de alumnos para la creación de productos

Name of the conference: VI Congreso Internacional Docencia Universitaria en Innovación 2010.

City of event: Barcelona, Spain,

Date of event: 30/06/2010

F. Vera-García; J.R. García-Cascales; J. Zueco-Jordán. "VI CIDUI Nuevos Espacios de Calidad en la Educación Superior.. Editorial.". ISBN 978-84-8458-324-0

63 Title of the work: Movilidad de estudiantes ERASMUS en la ETSII de la UPCT

Name of the conference: VI Congreso Internacional Docencia Universitaria en Innovación 2010.

City of event: Barcelona, Spain,

Date of event: 30/06/2010

J. Zueco-Jordán; F. Vera-García; J.R. García-Cascales. "VI CIDUI Nuevos Espacios de Calidad en la Educación Superior.. Editorial.". ISBN 978-84-8458-324-0

64 Title of the work: ¿Es posible la motivación del estudiante en la enseñanza universitaria? Caso práctico en la UPCT

Name of the conference: VI Congreso Internacional Docencia Universitaria en Innovación 2010.

City of event: Barcelona, Spain,

Date of event: 30/06/2010

J. Zueco-Jordán; F. Vera-García; J.R. García-Cascales. "VI CIDUI Nuevos Espacios de Calidad en la Educación Superior.. Editorial.". ISBN 978-84-8458-324-0

65 Title of the work: Analysis of the use of different heat exchangers in propane heat pumps

Name of the conference: 9th IIR Gustav Lorentzen Conference 2010.

Corresponding author: Yes

City of event: Sydney, Australia

Date of event: 12/04/2010

End date: 14/04/2010

Organising entity: International Institute of Refrigeration

City organizing entity: Île de France, France

F. Vera-García; J.R. García Cascales; J.M. Corberán-Salvador; S. Martínez-Ballester. "Refrigeration Science and Technology Proceedings". ISBN 978-2-913149-74-8

66 Title of the work: Development of an installation to reduce the temperature of photovoltaic modules and improve their efficiency

Name of the conference: International Conference on Renewable Energies and Power Quality (ICREPQ'10)

City of event: Granada, Spain,



Date of event: 23/03/2010

R. Mazón-Hernandez; JR Garcia-Cascales; F Vera-García; A Sanchez-Kaiser; B Zamora-Parra. "Actas del congreso."

67 Title of the work: Diseño y desarrollo de un banco de ensayo de captadores solares térmicos mejorados

Name of the conference: IX Iberoamericano de Ingeniería Mecánica 2009. (CIBIM9)

City of event: Las Palmas de Gran Canaria,, Canarias, Spain

Date of event: 17/11/2009

End date: 20/11/2009

F A García Pinar; R Herrero Martín; J Pérez García; F Vera García; JR García Cascales. "Anales de la Ingeniería Mecánica Editorial: Federación Iberoamericana de Ingeniería Mecánica. 2009".

68 Title of the work: Development of a IRSN code for dust mobilization problems in ITER

Name of the conference: The Ninth International Symposium on Fusion Nuclear Technology (ISFNT9)

City of event: Dalian, China, China

Date of event: 11/10/2009

End date: 16/10/2009

García-Cascales J.R.; Vera-García F.; Zueco-Jordán J.; Bentaib A.; Meynet N.; Vendel J.; Perrault D. "Actas del Congreso".

69 Title of the work: Instalación para el estudio del proceso de ebullición en microcanales

Name of the conference: CYTEF-2009. V Congreso Ibérico y III Congreso Iberoamericano de Ciencias y Técnicas del Frío

Corresponding author: Yes

City of event: Castellón, España, Comunitat Valenciana, Spain

Date of event: 22/09/2009

End date: 25/09/2009

José Ramón García-Cascales; Francisco Vera-García; José Pérez-García; Fernando Illán-Gómez. "Actas del Congreso Editorial:".

70 Title of the work: Prediseño y análisis de una instalación para el estudio del proceso de condensación en microcanales

Name of the conference: CYTEF-2009. V Congreso Ibérico y III Congreso Iberoamericano de Ciencias y Técnicas del Frío

Corresponding author: Yes

City of event: Castellón, España, Comunitat Valenciana, Spain

Date of event: 22/09/2009

End date: 25/09/2009

Francisco Vera-García; José Ramón García-Cascales; José Pérez-García; Fernando Illán-Gómez. "Actas del Congreso Editorial:".

71 Title of the work: Simulación dinámica de una instalación experimental para el estudio de la ebullición de refrigerantes en microcanales

Name of the conference: VI Jornadas Nacionales de Ingeniería Termodinámica

Corresponding author: Yes

City of event: Cordoba, Andalucía, Spain

Date of event: 03/06/2009

End date: 05/06/2009

José Ramón García-Cascales; Francisco Vera-García; José Pérez-García; Fernando Illán-Gómez; José María Cano-Izquierdo; G. Monreal-González. "Actas del Congreso Editorial:".



- 72** **Title of the work:** ON THE ANALYSIS OF COMPACT HEAT EXCHANGERS WORKING AS EVAPORATORS
Name of the conference: 1st IIR INTERNATIONAL WORKSHOP ON REFRIGERANT CHARGE REDUCTION IN REFRIGERATING SYSTEMS- RCR 2009
City of event: ANTONY-PARIS, Île de France, France
Date of event: 06/04/2009
End date: 07/04/2009
JR García Cascales; F Vera García; J González-Maciá; JM Corberán-Salvador; MW Johnson; GT Kohler."Actas del Congreso: 1st IIR INTERNATIONAL WORKSHOP ON REFRIGERANT CHARGE REDUCTION IN REFRIGERATING SYSTEMS- RCR 2009".
- 73** **Title of the work:** REALIZACIÓN DE MAPAS DE IRRADIACIÓN SOLAR EN LA REGIÓN DE MURCIA
Name of the conference: 9 CONAMA. Congreso Nacional del Medio Ambiente Cumbre del Desarrollo Sostenible
City of event: Madrid, Madrid, Comunidad de, Spain
Date of event: 01/12/2008
End date: 05/12/2008
Delgado Marín J.P.; Vera-García F.; García-Cascales; Hernández-Guillén Z."Actas del Congreso Editorial:".
- 74** **Title of the work:** A model for the analysis of compact heat exchangers
Name of the conference: 2008. 19th International Compressor Engineering and 12th Refrigeration and Air Conditioning Conferences
Corresponding author: Yes
City of event: Laffayette, United States of America
Date of event: 14/07/2008
End date: 17/07/2008
Organising entity: Purdue University **Type of entity:** University
JR García Cascales; F Vera García; J González-Maciá; JM Corberán-Salvador; MW Johnson; GT Kohler. "Actas en congreso internacional 12th Refrigeration and Air Conditioning Conferences".
- 75** **Title of the work:** ASPECTOS SOBRE EL MODELADO Y DISEÑO DE UN SISTEMA DE REFRIGERACIÓN POR ABSORCIÓN ASISTIDO CON ENERGÍA SOLAR
Name of the conference: XIV Congreso Ibero y IX Congreso Iberoamericano de Energía Solar
City of event: Vigo,
Date of event: 17/06/2008
End date: 22/06/2008
García-Cascales J.R.; Vera-García F.; Cano Izquierdo J.M.; Delgado Marín J.P.; Martínez Sánchez R."Actas del Congreso Editorial: I.S.B.N. 978-84-612-4470-6 INTERNATIONAL SOLAR ENERGY". (Spain): ISBN 978-84-612-4470-6
- 76** **Title of the work:** TRATAMIENTO, ESTUDIO Y OBTENCIÓN DE CORRELACIONES DE DATOS PROCEDENTES DE 35 ESTACIONES METEOROLÓGICAS PARA LA REALIZACIÓN DE MAPAS DE IRRADIACIÓN SOLAR EN LA REGIÓN DE MURCIA
Name of the conference: XIV Congreso Ibero y IX Congreso Iberoamericano de Energía Solar
City of event: Vigo,
Date of event: 17/06/2008
End date: 21/06/2008
Vera-García F.; García-Cascales J.R.; Hernández-Guillén Z.; Delgado Marín J.P."Actas del Congreso Editorial: I.S.B.N. 978-84-612-4470-6 INTERNATIONAL SOLAR ENERGY". (Spain): ISBN 978-84-612-4470-6



- 77** **Title of the work:** MODELADO DE UN SISTEMA DE REFRIGERACIÓN POR ABSORCIÓN ASISTIDO CON ENERGÍA SOLAR
Name of the conference: XVII Congreso de Ingeniería Mecánica
City of event: Gijón, Asturias, Principado de, Spain
Date of event: 14/02/2008
End date: 16/02/2008
García-Cascales J.R.; Vera-García F.; Delgado Marín J.P.; Martínez Sánchez. R. "Actas del Congreso". ISSN 0212-5072
- 78** **Title of the work:** OBTENCIÓN DE MAPAS DE IRRADIACIÓN SOLAR EN LA REGIÓN DE MURCIA MEDIANTE LA UTILIZACIÓN DE TÉCNICAS SIG Y DATOS PROCEDENTES DE 35 ESTACIONES METEOROLÓGICAS
Name of the conference: XVII Congreso de Ingeniería Mecánica
Corresponding author: Yes
City of event: Gijón, Asturias, Principado de, Spain
Date of event: 14/02/2008
End date: 16/02/2008
Vera-García F.; García-Cascales J.R.; Hernández-Guillén Z.; Delgado Marín J.P. "Actas del Congreso". ISSN 0212-5072
- 79** **Title of the work:** CORRELACIONES PARA LA CARACTERIZACIÓN DE LA TRANSMISIÓN DE CALOR EN EL MODELADO SIMPLIFICADO DE INTERCAMBIADORES CARCASA – TUBO. APLICACIONES PRÁCTICAS
Name of the conference: IV CONGRESO IBÉRICO Y II CONGRESO IBEROAMERICANO Org. Sociedad Española de Ciencias y Técnicas del Frío
City of event: Oporto, Portugal
Date of event: 11/11/2007
End date: 13/11/2007
Vera-García F.; García-Cascales J.R.; Gonzalvez-Macia J.; Corberán-Salvador J.M. "Proceedings of CYTEF-2007.". (Portugal): INEGI, ISBN 978-972-8826-16-1
- 80** **Title of the work:** ESTUDIO EXPERIMENTAL DE LA INFLUENCIA DEL FLUJO MÁSSICO EN LAS PRESTACIONES DE UNA BOMBA DE CALOR DE COMPRESIÓN DE PROPANO (AGUA-AGUA). ANÁLISIS DETALLADO MEDIANTE MODELADO CON EL PROGRAMA DE CÁLCULO IMST-ART
Name of the conference: IV CONGRESO IBÉRICO Y II CONGRESO IBEROAMERICANO Org. Sociedad Española de Ciencias y Técnicas del Frío
City of event: Oporto, Portugal
Date of event: 11/11/2007
End date: 13/11/2007
J. González-Maciá; F. Vera-García; J.R. García-Cascales; J.M. Corberán-Salvador; C. Radulescu. "Proceedings of CYTEF-2007. Editorial: INEGI I.S.B.N. 978-972-8826-16-1". (Portugal): INEGI, ISBN 978-972-8826-16-1
- 81** **Title of the work:** MODELO SIMPLIFICADO PARA EL ANÁLISIS DE INTERCAMBIADORES CARCASA - TUBO
Name of the conference: IV CONGRESO IBÉRICO Y II CONGRESO IBEROAMERICANO Org. Sociedad Española de Ciencias y Técnicas del Frío
City of event: Oporto, Portugal
Date of event: 11/11/2007
End date: 13/11/2007
García-Cascales J.R.; Vera-García F.; Gonzalvez-Macia J.; Corberán-Salvador J.M. "Proceedings of CYTEF-2007.". INEGI, ISBN 978-972-8826-16-1



- 82** **Title of the work:** ERROR ESTIMATION OF THE CLASSICAL SOLUTION FOR THE PROBLEM OF COOLING AIR UNDER DEHUMIDIFYING CONDITIONS
Name of the conference: 22nd INTERNATIONAL CONGRESS OF REFRIGERATION
City of event: Beijing, China
Date of event: 21/08/2007
End date: 26/08/2007
García-Cascales J.R.; Vera-García F.; Gonzalez-Macia J.; Corberán-Salvador J.M."ICR-2007-B1-1052". IIF-IIR Congr., France, ISBN 978-2-913149-59-5
- 83** **Title of the work:** ASSESMENT OF BOILING HEAT TRANSFER CORRELATIONS IN A REFRIGERATION EVAPORATOR
Name of the conference: INTERNATIONAL CONFERENCE ON BOILING HEAT TRANSFER
City of event: Spoleto, Italy
Date of event: 07/05/2006
End date: 12/05/2006
García-Cascales J.R.; Vera-García F.; Gonzalez-Macia, J.; Fuentes-Díaz D."Proceedings of ECI 2006."
- 84** **Title of the work:** MODELLING, EFFECT AND BEHAVIOR OF THE EGR VENTURI IN A HEAVY-DUTY DIESEL ENGINE.
Name of the conference: ATTCE, "Automotive and Transportation Technology Congress and Exhibition" (SAE).
City of event: Barcelona,
Date of event: 01/02/2003
Lujan, J.M.; Payri, F.; Vera, F.; Guardiola, C."SAE Paper No 01ATT-369. Editorial: SAE. Inc. I.S.B.N. 0-7680-0861-1".
- 85** **Title of the work:** A METHODOLOGY TO DETERMINE THE MASS FUEL INJECTED DURING A TRANSIENT PROCESS IN A HEAVY-DUTY ENGINE WITH EGR SYSTEM.
Name of the conference: FISITA 2002 "World Automotive Congress".
City of event: Helsinki, Finland
Date of event: 20/06/2002
End date: 22/06/2002
Lujan, J.M.; Payri, F.; Vera, F.; Serrano, J.R."FISITA 2002 Proceedings F02V005". SALT-FISITA, ISBN 951-9155-16-3
- 86** **Title of the work:** EFECTOS DE LA RECIRCULACIÓN EXTERNA DE GASES DE ESCAPE SOBRE EL PROCESO DE RENOVACIÓN DE LA CARGA EN MOTORES DIESEL TURBOALIMENTADOS.
Name of the conference: XIV Congreso de Ingeniería Mecánica.
City of event: Universidad Carlos III.Leganés,
Date of event: 13/12/2000
End date: 15/12/2000
Vera, F.; Ruiz, S.; Luján, J.M."Anales de la Ingeniería Mecánica 2000 I.S.B.N. 0212-5072". (Spain): Asoc. Española de Ing. Mecánica.,



R&D management and participation in scientific committees

Scientific, technical and/or assessment committees

Committee title: International Institute of Refrigeration (IIR)
Primary (UNESCO code): 331326 - Refrigerating equipment

Organization of R&D activities

Title of the activity: IX Congreso Nacional de Ingeniería Termodinámica
Type of activity: Secretario de la Organización del Congreso
Geographical area: National
Convening entity: Escuela Técnica Superior de Ingeniería Industrial
Type of entity: University Centres and Structures and Associated Bodies
City convening entity: Cartagena, Murcia, Región de, Spain
Start-End date: 03/06/2015 - 05/06/2015
Duration: 3 days

R&D management

Name of the activity: Director de la Cátedra UPCT-REPSOL
Type of management: Management of body
Performed tasks: Desarrollo de actividades de colaboración con la empresa y la Fundación Repsol y las líneas de investigación en la UPCT
Entity: Universidad Politécnica de Cartagena
Type of entity: University
Start date: 09/01/2020
Access system: By vote among several candidates
Average annual budget: 14.000
Nº of people: 1
Target group profile: Private non-profit agencies funding R&D&I
Geographical area: National

Other achievements

Stays in public or private R&D centres

- Entity:** Università degli Studi di Padova
Type of entity: University
Faculty, institute or centre: Dipartimento di Fisica Tecnica.
City of entity: Padova, Italy
Start-End date: 01/07/2011 - 30/09/2011
Duration: 105 days
Name of programme: Fondos propios procedentes de proyectos de investigación con empresas.
Goals of the stay: Guest
Provable tasks: Investigación. Modelización de la transferencia de calor y caída de presión en procesos de evaporación en el interior de tubos de minicanales refrigerantes de última generación como fluido de trabajo.



- 2** **Entity:** IRSN - Institut de Radioprotection et de Sûreté Nucléaire **Type of entity:** R&D Centre
City of entity: Fontenay -oux- Roses, Paris - Ile de France, Île de France, France
Start-End date: 25/07/2010 - 27/08/2010 **Duration:** 35 days
Name of programme: Fondos propios procedentes de proyectos de investigación con empresas.
Goals of the stay: Guest
Provable tasks: Investigación. Modelización de la dispersión y combustión de partículas radioactivas en el seno del reactor de fusión ITER
- 3** **Entity:** IRSN - Institut de Radioprotection et de Sûreté Nucléaire **Type of entity:** R&D Centre
City of entity: Fontenay -oux- Roses, Paris - Ile de France, Île de France, France
Start-End date: 01/07/2008 - 16/10/2006 **Duration:** 98 days
Funding entity: FUNDACION SENECA AGENCIA DE CIENCIA Y TECNOLOGIA DE LA REGION DE MURCIA
Name of programme: PROGRAMA PMPDI -UPCT 2008. Programa de apoyo a la Movilidad del PDI contratado por la UPCT PROGRAMA SENECA 2008. Ayudas a la realización de estancias externas de investigadores- Acción de apoyo al intercambio de conocimientos.
Goals of the stay: Post-doctoral
Provable tasks: Investigación. Cooperación para la modelización de la dispersión y combustión de partículas radioactivas en el seno del reactor de fusión ITER.
Acquired skills developed: Modelización con CAST3M el ITER y fallos relacionados con la combustión y la movilización de partículas en el interior del reactor
Narrative explanation: Artículos e informes técnicos publicables
- 4** **Entity:** MODINE - Applied Thermal Innovation **Type of entity:** Innovation and Technology Centres
City of entity: Racine, WI, United States of America
Start-End date: 07/07/2006 - 16/10/2006 **Duration:** 3 months - 10 days
Funding entity: FUNDACION SENECA AGENCIA DE CIENCIA Y TECNOLOGIA DE LA REGION DE MURCIA
Name of programme: PROGRAMA SENECA 2006. Ayudas a la realización de estancias externas de investigadores- Acción de apoyo al intercambio de conocimientos
Goals of the stay: Guest
Provable tasks: Investigación para el desarrollo de modelos de intercambiadores bifásicos
Narrative explanation: Artículos y firma de un contrato con la empresa MODINE Inc.
- 5** **Entity:** CHALMERS UNIVERSITY **Type of entity:** University
City of entity: Gotemburgo, Sydsverige, Sweden
Start-End date: 01/10/1997 - 31/05/1998 **Duration:** 5 months
Funding entity: FUNDACION RECI-UNIVERSIDAD POLITECNICA DE VALENCIA
Name of programme: Programa Erasmus.
Goals of the stay: Estancia por beca Erasmus
Provable tasks: Estudio de la corrosión interior de las tuberías para la mejora de la calidad de las aguas potables en la ciudad sueca de Göteborg.



Editorial councils

- 1** **Name of the editorial council:** Topic Editor of Journal "Energies"
Affiliation entity: MDPI Journals **Type of entity:** Editorial internacional
Start date: 03/11/2019 **Duration:** 4 years
- 2** **Name of the editorial council:** Guest Editor of Special Issue of Journal "Energies"
Affiliation entity: MDPI Journals **Type of entity:** Editorial internacional
Start date: 03/04/2019 **Duration:** 3 years