



UNIVERSIDAD DE JAÉN

Comisionado para el Centro de Estudios Avanzados en
Energía y Medio Ambiente



CONFERENCE ON PHOTOVOLTAIC SOLAR ENERGY AND THE CHAIR OF SOLFOCUS AT THE UNIVERSITY OF JAEN

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The annual 'Week of Science', now in its 8th year, was held at the University of Jaen. On Tuesday 18th November the 'Conference on Photovoltaic Solar Energy' took place and it was promoted by the Commissioner for the Centre of Advanced Studies in Energy and Environment at the University of Jaen. This Conference was one of the activities of the Chair of SOLFOCUS.

The objective of this Conference on Photovoltaic Solar Energy was to introduce the people of Jaen to a beneficial and productive renewable energy source, which is found extensively in our environment, as well as explaining the latest scientific advances that are being achieved in this field. Consequently, the events celebrated included a guided visit to the photovoltaic solar energy facilities at the University of Jaen, a lecture by Professor Mr. Antonio Luque López, and a round table with important figures of great prestige at European level both at business and academic field.

The conference was opened by the Rector of the University of Jaen, Hon. Mr Manuel Parras Rosa, who highlighted the importance of the Photovoltaic Electricity and what it is practicing today. He defined it as '*one of the motors of this society*'. Also, he praised the work the research group IDEA (Research and Development in Solar Energy) has been carrying out in the past few years. He also praised the company SOLFOCUS, that with the collaboration alongside the group IDEA, created a Chair on photovoltaic solar energy at the University of Jaen, known as 'Chair of SOLFOCUS' and this conference is included in its list of activities.



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Energía y Medio Ambiente



Nowadays, the company SOLFOCUS is one of the leading companies in solar photovoltaic concentration and with the creation of this chair, it tries to promote research, the technological development and training in photovoltaic solar energy. Thus, the Chair of SOLFOCUS has planned to do different activities in the coming months, among them: the announcement of an international award for the best doctoral thesis on photovoltaic concentration, the teaching of several courses in specialization and the start of a research project consisting of a field of tests of photovoltaic systems, which will be called “Antonio Luque Field of tests”. As the Rector mentioned in his speech, the creation of this Chair is in coordination with one of the objectives of the University of Jaen, along with the promotion of renewable energy use.



Speakers in the Conference with the Director of the Chair of Solfocus in front of “El Girasol” in the University of Jaen

Once the conference was opened, the guided visit took place. It included a visit to the photovoltaic facilities and the laboratories of solar energy in the *Campus de las Lagunillas*. This visit was guided by the members of the research group IDEA, who exhibited their achievements and developments in its near 20 years of research in the design of photovoltaic facilities and in the quality evaluation and control of those already existing. It should be pointed out that more than 200 pre-university students from different educative centres of the province attended and this proves, once again, the social impact this type of technology has.

The second activity was the conference “The Necessity of the Conversion of the Photovoltaic Solar Energy” by Professor Mr. Antonio Luque Lopez, Doctor of Telecommunication Engineering at the Polytechnic University of Madrid, Professor of Physics at Electronics University and Doctor Honoris Causa of the University of Jaen and University Carlos III of Madrid. He has also been awarded with the Becquerel award, the Solar- World-Einstein award and the prizes Jaime I and Juan de la Cierva of great national and international prestige.

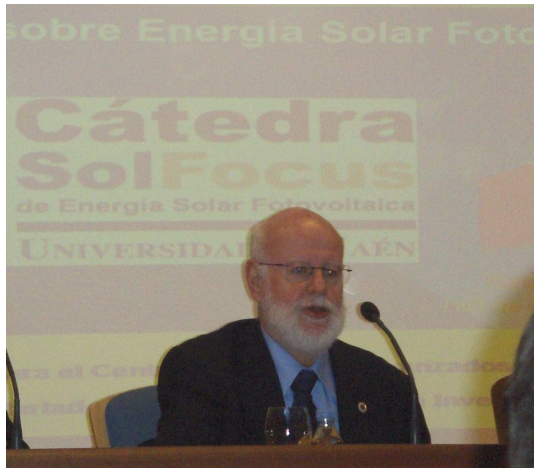


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Comisionado para el Centro de Estudios Avanzados en
Energía y Medio Ambiente



During the conference, Professor Luque did a brief synopsis explaining why we should use solar energy, and the relevance of photovoltaic regarding other types of renewable energies. He also exposed the research lines followed by the Solar Energy Institute, of which he has been the director since 1979 when it was founded.



Professor Luque talked about international level projects such as FULLSPECTRUM, CENTESIL AND ISFOC, among others.

An important issue discussed was the future of the photovoltaic solar energy, confirming that it passes through the concentrators that use multijunction cell modules or the new technologies that are under study and also mentioned was the role that companies like SOLFOCUS have been developing in research centers as mentioned before: Photovoltaic Systems of Concentrators (ISFOC).

Prof. A. Luque during his lecture.

Finally, he encouraged the attendees to continue with their research role and to believe in this energy source, as he well defined, it can be the only one which can help us to live in a sustainable way, and that although the photovoltaic solar energy was considered just a pure Utopia, it can be said that today it is a reality.

After a short break, the round table on *Research, Technology and Photovoltaic Industry* started. It was chaired by Doctor Ignacio Luque, Engineer of Telecommunication of the Polytechnic University of Madrid and founder of the company *Inspira S.L* [Limited Society]; currently he is the director of *Inspira-SOLFOCUS*. The rest of the table was formed by experts of international level, among them Christopher Hewitt, director of Marketing in *SOLFOCUS* Europe; Juan C. Jimeno, Professor in the Basque Country University and director of the University Mixed Institute of Microelectronics (Tim); Abdoulaye F. Diallo, Professor of the Technological University of Panama and Doctor in Physics by the University of Arizona; and Pablo Valera, Director of the Company *Astrom Sustainable Energy* and Professor in different masters and courses given at the Technical University of Valencia and in the CIEMAT.



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Energía y Medio Ambiente



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Speakers and chair in the round table.

The speakers of the round table described the work they have been doing in their companies and entities. Thus, Mr Christopher Hewitt detailed the advances that the company SOLFOCUS is developing with the promising technology of Photovoltaic Solar Concentration; whereas Mr Pablo Valera highlighted the current opportunity for business in the photovoltaic trade and specifically, the role Spain is developing thanks to its privileged position in this sector.

Mr. Juan C. Jimeno thought about the situation of the I+D+I in Spain. Relating to his experience at the Microelectronic Technology Institute and he talked about the research and development lines that they are following in the solar cell technology of crystalline silicon. In his speech, he also mentioned the market's exponential growth, with annual rates higher than 40%.

Finally, Professor Mr. Abdoulaye F. Diallo expressed a different but complementary view on the importance of research and development in photovoltaic solar energy have, not only for the advance of the industrialized societies, but as a motor in developing countries; he described the different electrification projects with autonomous equipment that are being made in Panama thanks to the Government of that country and in collaboration with different organizations.

As with the conference of Professor Luque, the participation in the round table was extraordinary since small groups of discussions were formed with the speakers at the end of the round table.



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The conference on ‘Photovoltaic Solar Energy’ proved to be a success, not only for the participation of the attendees but also for the quality of the speakers who were able to transmit a complete view of the Industry of Photovoltaic Solar Energy. They covered technological as well as economic and social factors. We could conclude by saying that the general feeling about the conference can be summarized with a sentence the Professor Luque stated: *‘The Photovoltaic Solar Energy is that of the 21st century and the only one which allows the development of the humanity’*.