

CONSOLFOOD 2018 is being planned for 22nd, 23rd and 24th January, 2018 at *Instituto Superior de Engenharia, Universidade do Algarve, Campus da Penha, 8005-139 Faro-Portugal*.

Many people in the developing countries are burning wood, charcoal or even garbage on open fires for cooking purposes because they do not have access to electricity or gas. Inefficient burning of wood, charcoal, dung, and plant residues is causing health problems, deforestation and greenhouse gas emissions. The introduction of solar cookers in sunny areas for cooking, food drying, and water sterilization is crucial. At the same time, there are also many people living in sunny parts of world using only gas and electricity for cooking. The potential of thermal solar energy for cooking is well understood, but adoption of this technology is not increasing as rapidly as would be desirable. Thermal solar energy has great potential for food processing tasks like drying, cooking, and pasteurization.

Advances in solar food processing and solar cooking, as well as many other related subjects, are the main topics of the Second International CONSOLFOOD Conference.

The First International Conference for solar thermal cooking and food processing - CONSOLFOOD2016 - was held at the University of Algarve, Institute of Engineering, Faro, Portugal on 22nd and 23rd January 2016. After some get-togethers with specialists from all over the world, it became apparent that the financial, educational and vocational support of grass roots workers is essential when solar food processing techniques are introduced to large populations. Such support enables more rapid dissemination of the technology.

Forty eight abstracts covering several topics have been submitted by authors from different countries as result of the first call for abstracts with deadline of 4th June 2017. List of abstracts is here included for a better dissemination of the expected conference programme towards encouraging interested people to attend the conference.

Oral sessions, keynote lectures, a round table discussion, and a poster session are all being planned towards the discussion of topics related to advances in solar food processing and solar cooking.

Organizers are now confident that the success of CONSOLFOOD2016 can be repeated. Organizers encourage other potential participants with relevant work to submit abstracts in the final submission period. The deadline is 30th September, 2017. The abstract must clearly state the main topic of your presentation or poster. The abstracts will be assessed by the members of the scientific committee. The organizing committee will inform authors whether their submitted abstract has been accepted. To submit abstracts, authors should send the file to the organizers (Celestino Ruivo: cruivo@ualg.pt and Bernhard Müller: bs_mueller@gmx.net).

Finally, we encourage all authors to write a full length paper for inclusion in our conference proceedings, using the template available here: <http://www.consolfood.org>. Authors should send the paper to the organisers by email before 20th December 2017.

During the conference, whenever possible, food for lunches and tea/coffee breaks will be prepared using solar thermal energy. The conference fee includes lunches and tea/coffee breaks and it is expected to be around 120 euros.

Updated information on CONSOLFOOD 2018 will be provided at www.consolfood.org.

Last call for abstracts

22-23-24

January 2018

INSTITUTE OF ENGINEERING
UNIVERSITY OF ALGARVE
CAMPUS DA PENHA
FARO-PORTUGAL

Second International Conference

CONSOLFOOD2018

>Advances in Solar

>Thermal Food Processing



UAlg ISE

UNIVERSIDADE DO ALGARVE
INSTITUTO SUPERIOR DE ENGENHARIA

Tentative programme 22nd January 2018

09:00-09:15 **Opening session**

09:15-10:35 **Keynote lecture 1**

10:35 -11:15 **Coffee, tea and cake, starting cooking lunch**

11:15-13:15 **Session 1- Oral communications**

13:15-14:30 **Lunch**

14:30-16:00 **Poster session**

16:00-16:30 **Coffee, tea and cake**

16:30-18:00 **Session 2- Oral communications**

23rd January 2018

09:15-10:35 **Keynote lecture 2**

10:35-11:15 **Coffee, tea and cake, starting cooking lunch**

11:15-13:15 **Session 3- Oral communications**

13:15-14:30 **Lunch**

14:30-16:00 **Round Table**

16:00-16:30 **Coffee, tea and cake**

16:30-18:00 **Session 4- Oral communications**

24th January 2018

09:15-12:00 **Exhibition of different types of solar cookers, solar dryers and other equipment related to solar food processing.**

Solar cookers in action preparing coffee, tea, cake and lunch

12:00-14:00 **Lunch and closing session**

Note: Solar cooking users, designers, enthusiasts are encouraged to come with their solar cookers and ingredients to be cooked at Campus da Penha. Interested people should contact the organizing committee for more details.

Advisory and scientific committee

Elmo Dutra da Silveira Filho, Brazil
Pedro Serrano, Chile
Shyam Nandwani, Costa Rica
Rodrigo Carpio, Ecuador
Jean-Jacques Serra, France
Pierre Aubert, France
Barbara Sturm, Germany
Anasuya Ganguly, India
Jignesh Mehta, India
Deepak Gadhia, India
Manish Kumar Pandey, India
Manoj Soni, India
Vivek Kabra, India
R. Shyamala, India
Daniel Feuermann, Israel
Juana María Hernández Jarquín, Mexico
João Nuno Pinto Miranda Garcia, Portugal
Paulo Pinto, Portugal
Crosby Menzies, South Africa
Ángeles López Agüera, Spain
Andrés Barrio de Lindow, Spain
Antonio Lecuona Neumann, Spain
Francisco Javier Macías Fuentes, Spain
Javier Diz, Spain
Charles Muwonge, Uganda
Stewart MacLachlan, UK
Tom Sponheim, USA

Additional information:

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Faro international airport has good connections to other European airports. Regular flights are usually available to and from France, Germany, the Netherlands, Denmark and the UK.

The city of Faro has hotel rooms at reduced rates in January. Please feel free to ask the organizers for a list of suggested hotels with special discounts for conference participants. Hotel accommodation for one or two people can be found from 35 euros.

Conference Venue: University of Algarve-Campus da Penha, located IN the city of Faro (NOT in Campus de Gambelas, which is located OUTSIDE the city of Faro towards the airport).

Organizing committee:

Celestino Ruivo, (Chairman) University of Algarve, cruivo@ualg.pt, Portugal

Carlos Miguel Afonso, University of Algarve, cafonso@ualg.pt, Portugal

Bernhard Müller, Natural Resources and Waste Management, bs_mueller@gmx.net, Kenya

Michael Bonke – LAZOLA Initiative for Spreading Solar Cooking, optimist@optimist.com, Germany

Juan Bello Llorente, Centro Integrado de FP Someso. A Coruña, juanbello@edu.xunta.es, Spain

Eduardo A. Rincón Mejía, Universidad Autónoma de la Ciudad de México, eduardo.rincon@uacm.edu.mx, Mexico

Kedar Mehta, R&D Department of Solar and Wind Energy at TinyTech Plants, kedarmehta128@gmail.com, India

Dave Oxford, SLiCK Solar Stove, daveoxford@metronet.co.uk, UK

Vishal Sardeshpande, Centre for Technology Alternatives for Rural Areas, IIT Bombay, vishalsir@gmail.com, India

List of abstracts submitted during first submission period

Abstract number	Title	Authors	Country
1	Solar cooking with "deep parabola" Sunplicity	Alain BIVAS	France
2	100 SUNS: A Low-Cost DIY Solar Cooker	Amogh Sahaje	India
3	Empowerment of Women in the Gambia by using Solar Technology	Elena Steger Kassama	Switzerland
		Annatina Foppa	Switzerland
		Sibylle Jost	Switzerland
4	EVOLUTION OF SOLAR COOKERS	Ashok Kundapur	India
5	HYBRID SOLAR DRYING SYSTEM BLACK BLOCK ®	Gonçalo C. Martins	Portugal
6	Revolution in Solar Grade Mirror (Reflector) for Mass Cooking Application	Bosky Shah	India
		Rajesh Verma	India
7	From Development Aid towards an Economic Factor: Sustainable Production of Clean Cookstoves in Madagascar	Christian Frost	Switzerland
8	DEVELOPMENT OF A PERMANENT SOLAR COOKER FOR THE UK - CONVENIENCE, RELIABILITY AND SAFETY	Dave Oxford	UK
		Stewart MacLachlan	UK
9	A Parabolic Solar Cooking Device Developed in Lesotho, Southern Africa	Ivan D. Yaholnitsky	Lesotho
10	New design of Box Type solar Cooker	Kota Anjaneyasarma	India
11	INFLUENCE OF SUN DRYING METHOD ON THE VOLATILE METABOLITES OF WHITE AND BLACK FIGS (FICUS CARICA L.)	S. Mahmoudi	Algeria
		C. Barrocas Dias	Portugal
		A. Manhita	Portugal
		M. Khali	Algeria
		Y. Boutoumi	Algeria

List of abstracts submitted during first submission period

Abstract number	Title	Authors	Country
12	SOLAR OVENS BUILT WITH VERY BASIC MATERIALS FOUND IN RURAL AREAS	Margarita Mediavilla	Spain
13	Challenges in promoting solar cookers in India: Social acceptance, cooking habits & technologies.	Neha Mehta	India
		Kinjal Pandya	India
14	Heliac Solar Cooker	Sedi L. Byskov	Denmark
		Karsten Dupont	Denmark
		Gideon P. Caringal	Denmark
		Maria Matschuk	Denmark
		Henrik Pranov	Denmark
15	CONCRETE FUNNEL SOLAR COOKER: EXPERIENCES WITH MAKING AND COOKING	Jignesh R. Mehta	India
16	FERMENTATION AND DRYING EXPERIMENTS FOR THE OPTIMIZATION OF PRACTICES IN THE IVOIRIAN COCOA PRODUCTION	Kibangou Nkembo Serge A	Côte d'Ivoire
		Oyedele Sampson	Côte d'Ivoire
		Aka Hyacinthe	Côte d'Ivoire
17	SOLAR DEVELOPMENTS ON THE EAST COAST OF SCOTLAND	Iain Todd	Scotland
18	Photovoltaic solar cooking with Thermal Energy Storage (TES)	A.Lecuona	Spain
		D. Victoria	Spain
		J.A. Perteguer	Spain
19	Photovoltaic solar cooking for reduced economy homeowners	A.Lecuona	Spain
		J. I. Nogueira	Spain
		M. Legrand	Spain
20	Solar granola project	Rita Taraborelli	Brazil
21	BEAM STEERING LENS ARRAY FOR SOLAR COOKING	Håkon J. D. Johnsen	Norway
		Ole Jørgen Nydal	
		Jan Torgersen	Norway

List of abstracts submitted during first submission period

Abstract number	Title	Authors	Country
22	THE INTERDISCIPLINARITY IN EXACT AND NATURAL SCIENCES TEACHING: THE DAILY APPLICATION OF SOLAR ENERGY USING THE SOLAR COOKER	Emmanuelle Fontanesi dos Santos	Brazil
23	INTIGRATION OF SOLAR THERMAL TECHNOLOGY TO IMMPROVE BIOGAS PRODUCTION FOR DOMESTIC COOKING APPLICATION	Rajesh Patel	India
		Kevin V Pokiya	India
24	DESIGN AND CONSTRUCTION OF A SOLAR STOVE WITH ENERGY STORAGE WITH PCM MATERIAL	G. Sánchez-Vega	Mexico
		J. Pineda-Piñón	Mexico
25	Polycarbonate Film "Cooking Sleeve" for Solar Cookers	Roger W. Haines	USA
26	A COMPARISON OF COPENHAGEN SOLAR COOKERS WITH OTHER SIMILAR SIZED PANEL COOKERS	Sharon Clausson	USA
27	FATHER HIMALAYA SOLAR FURNACES: OPTICAL PRINCIPLES, TECHNOLOGIES, AND LINEAGE	Jean-Jacques Serra	France
		Jacinto Rodrigues	Portugal
28	RECOSOL THE IBEROAMERICAN NETWORK ON SOLAR COOKERS AND SOLAR OVENS	Pedro Serrano Rodríguez	Chile
29	HYBRID SOLAR COOKERS, TWO MODELS	Pedro Serrano Rodríguez	Chile
30	SIMPLE METHOD TO MEASURE HEAT TRANSFER IN SOLAR COOKERS	Pedro Serrano Rodríguez	Chile
31	THERMAL PERFORMANCE EVALUATIONS, ENERGY SAVINGS AND PAYBACK PERIODS OF A BOX-TYPE SOLAR COOKER IN IBADAN, NIGERIA	Ademola K. Aremu	Nigeria
		Olaoluwa S. Awotunde	Nigeria
32	INNOVATIVE SOLAR CABINET DRYERS FOR APPLICATION IN FOOD PROCESSING PRODUCTS	R. Shyamala	India
33	<u>Sharing government perspective and participation in promoting Solar Cooking in India</u>	Suresh Ruparel	India
34	MY STORY OF SOLAR OVENS	Júlio Piscarreta	Portugal
35	ENHANCED METHODS TO ACCELERATE THE DISSEMINATION OF SOLAR COOKERS	Faustine Odaba	Kenia

List of abstracts submitted during first submission period

Abstract number	Title	Authors	Country
36	Development of a large capacity orange bagasse dehydrator	Eduardo Rincón Mejía	México
		Bernd Weber	México
37	SOLAR CONCENTRATORs FOR COMMUNITY COOKING & AUTOCLAVING	Ajay Chandak	India
		Rahul Kulkarni	India
38	SOLAR THERMAL PANEL PROTOTYPE USING UP-CYCLED MATERIALS	C. Cabo	Spain
		A. Lopez-Agüera	Spain
39	SOLAR DRYING - A GIGANTIC OPPORTUNITY TO COMBAT HUNGER AND POVERTY	Bernhard S. Müller	Germany
40	SOIL PASTEURISATION IN THE UK – A NEW JOB FOR SOLAR COOKERS.	Dave Oxford	UK
		Stewart MacLachlan	UK
41	DRYING OF SOLIDS: SOLAR DRYER WITH THERMAL RESERVE	Álvaro Eduardo Lentz Herrera	Mexico
		Alfredo Divanny López Catalán	Mexico
42	SOLAR RECIPE BOOK FOR INDIAN FOODS IN VARIOUS SOLAR COOKERS	Kinarkumar Rajesh Patel	India
		Ankit D. Ramoliya	India
43	CONSTRUCTION AND EVALUATION OF A SOLAR THERMAL-WIND HYBRID DRYER FOR FOOD PROCESSING IN CHIAPAS, MX	J.M. Hernández-Jarquin	Mexico
		Kinarkumar R. Patel	India
		G. Pavon Gomez	Mexico
		E.A Mojica Castillo	Mexico
		J.E Conde Diaz	Mexico
		R. Iglesias Diaz	Mexico
J. Pantoja Enriquez	Mexico		
44	SIMULATION OF A SOLAR ASSISTED COUNTERFLOW TUNNEL DEHYDRATOR	A. Carrillo-Andrés	Spain
		J.M. Sojo-Gordillo	Spain
45	SOLAR COOKING: TECHNICAL CHALLENGES AND SOLUTIONS	S. Mahavar	India
		P. Dashora	India

List of abstracts submitted during first submission period

46	APPLICATION OF SOLAR TECHNOLOGIES FOR THE DEHYDRATION OF INDIAN WALNUT (MARAÑÓN SEED: ANACARDIUM OCCIDENTALE) PRODUCED IN THE STATE OF CAMPECHE, MÉXICO	Margarita Castillo Téllez	Mexico
		Juan Carlos Ovando Sierra	Mexico
		Francisco Lezama Zárraga	Mexico
		Beatriz Castillo Téllez	Mexico
47	NETWORKING TO ADVANCE THE USE OF SOLAR COOKERS AS EDUCATIONAL TOOLS IN THE CLASSROOM	Mary Buchenic	USA
		Jennifer Gasser	USA
48	THE TASK OF CREATING PROGRAMS TO PROMOTE SOLAR COOKING	Jennifer Gasser	USA
		Mary Buchenic	USA