

About Tenerife

Tenerife is one of the most popular holiday destinations in the World. Its year round warm temperature and spectacular volcanic scenery as well as beaches, water sports and night-life ensure its constant popularity.

Tenerife is dominated by the large, dormant volcano of Mount Teide and the island rises steeply from all directions up to the snowy tip of Mount Teide. Surrounding the peak is the amazing volcanic landscape that is now protected in the Parque Nacional del Teide.

To the north of Tenerife the landscape is prettier with its more humid climate and lush vegetation. Puerto de la Cruz, La Orotava, and Garachico are excellent holiday destinations on the north of Tenerife. Also visit Tenerife's most beautiful village Masca.

The south of Tenerife is hotter and tends to get more of the visitors to the island. Los Cristianos is one of the main resorts as are Costa del Silencio and Las Galletas. For those in search of night clubs and a party atmosphere the Playa de las Americas and neighbouring Los Cristianos are the places to head for. There is also a wide range of attractions including Siam Park voted best water park in the world.

Santa Cruz de Tenerife is Tenerife's capital and home to Tenerife's most popular beach - the beach of Las Teresitas with golden sand imported from the Sahara. Nearby La-Laguna is one of the cultural highlights of Tenerife with lots of beautiful old villas and palaces. Its centre has been made a UNESCO World Heritage Site.



# IWINAC'22

Invited Speakers

- Dr. Hojjat Adeli, Ohio State University (USA)
- Dr. Rafael Rebolo, Inst. Astrofísica de Canarias (Spain)
- Dr. Manuel de Vega, Universidad de la Laguna (Spain)
- Dr. Athanasios Tsanas, University of Edimburgh (UK)
- Dr. Luis M. Sarro, Universidad Nacional de Educación a Distancia (Spain)

Special Issues (Expected)

- International Journal of Neural Systems (5.866)
- Integrated Computer-aided Engineering (4.827)
- Neurocomputing (5.719)
- Expert Systems (2.587)
- Natural Computing (1.690)

9<sup>th</sup> International Conference  
on the Interplay between  
Natural and Artificial Computation

Tenerife, Canary Islands (Spain)

Hotel Botánico

May 31 - June 3, 2022

Organized by.



Technical Secretariat  
BCD travel  
Avd. Maisonnave 11 - 7  
03003 ALICANTE (SPAIN)  
Phone: (+34) 965 228 393  
email: [eventos.a1c@bcdme.es](mailto:eventos.a1c@bcdme.es)

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Universidad  
Politécnica  
de Cartagena



## Scope

The global purpose of this interdisciplinary meeting is to offer a forum for discussion and exchange of ideas between scientists and engineers, trying to contribute to the answer of two basic questions:

- What can Physics, Mathematics, Engineering, Computation, AI and KE contribute to the understanding of Nervous System, Cognitive Processes and Social Behavior?
- How can Physics, Engineering, Mathematics, Computation, AI and KE find inspiration in the behavior and internal operation of physical, biological and social systems to conceive, develop and build new concepts, materials, mechanisms and algorithms of potential value in real world applications?



## Registration modes

- **"Standard"** registration fee includes attending the sessions, coffee breaks, lunches, social events, official dinner and the Conference Proceedings.
- **"Attendant A"** registration fee includes the same as Standard, except the Conference Proceedings.
- **"Attendant B"** registration fee only includes social events and official dinner.
- **"2nd paper and more"** registration includes only conference proceedings.
- Registration fees of at least one author for each accepted paper should be paid in full before submission to press (21/4/2022)

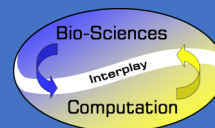
## José Mira's awards

Two prizes, honoured by the name of our founder, Prof. José Mira will be conceded at the end of the Official Dinner. One for the Best paper in Artificial computation and one for the Best paper in Natural computation. Both prizes will consist of an invitation to publish in one of the special issues of the congress and a full registration of one author in the next IWINAC event.



## IWINAC Conferences Honorary Chairs

Prof. Hojjat Adeli (USA)  
Prof. Rodolfo Llinás (USA)  
Prof. Zhou Changjiu (Singapur)



## IWINAC Conferences General Chairman

José Manuel Ferrández Vicente (UPCT)

## IWINAC Conferences Organizing Committee

José Ramón Álvarez-Sánchez (UNED)  
Félix de la Paz López (UNED)

## IWINAC'22 Committee of Honor

Rosa M<sup>a</sup> Aguilar Chinae, Rector of Univ. de la Laguna (ULL)  
Ernesto Pereda de Pablo, Vice-rector of Research of ULL  
Rafael Rebolo, Director of Inst. Astrofísica de Canarias  
M<sup>a</sup> Pilar Hernández Rodríguez, Director of UNED Tenerife

## IWINAC'22 Local Organizing Committee

Josefa Dorta Luis, President. (ULL)  
Pedro Gómez Vilda, Vice-President. (UPM)  
Carmen Victoria Marrero Aguiar, Member. (UNED)  
Carolina Jorge Trujillo, Secretary. (ULL)  
Chaxiraxi Díaz Cabrera, Secretary. (ULL)

## IWINAC'22 important deadlines

Full paper submission due:	January 31, 2022
Acceptance notification:	April 1, 2022
Start of registration:	April 1, 2022
End of "early bird" registration:	April 30, 2022
Conference date:	May 31-June 3, 2022

## Registration fees ("early bird"/normal)

- |                      |               |
|----------------------|---------------|
| • Standard           | € 525 / € 625 |
| • Session organizer  | € 425 / € 525 |
| • Workshop organizer | € 375 / € 475 |
| • Attendant A        | € 200 / € 225 |
| • Attendant B        | € 125 / € 150 |
| • 2nd paper and more | € 325 / € 375 |

## Call for Papers

The Program Committee requests original papers on the topics of the conference.

All accepted papers will be published in the proceedings by Springer in the LNCS series. Please check terms, conditions and topics at <http://www.iwinac.org>

## Call for pre-organized sessions

The Program Committee is requesting proposals for pre-organized sessions. Information about pre-organized sessions can be found also in our web.

The organizers (up to two) of effective pre-organized sessions will benefit from a discount on registration fees.

## Call for pre-organized Workshops

Pre-organized sessions with 10 or more participants will be considered as Workshops.

The organizers (up to two) of effective workshops will benefit from a discount on registration fees.

## Topics

### Physical Level:

Computational Neuroscience, Bio-inspired Electronics & Computation, Sensory & Motor Prostheses, Neurolinguistics, Neuroplasticity, Neuromorphic Computing, Neural Regeneration, tDCS.

### Symbol Level:

Neural Coding & Neuro-informatics, Evolutionary & Soft computing, Deep Learning, Big Data. Affective Computing & Emotional Technologies.

### Knowledge Level:

Cognition, Explainable & Ethical AI, Applications in Biology and Health Care, Precision Medicine, Robotics & HCI, Gerontechnology, Biometrics, Medical Images, Speech Processing & Analysis, Ambient Assisted Living, other application domains.

Check the complete topic list at [www.iwinac.org](http://www.iwinac.org)