US Office of Naval Research Global (ONRG): Overview and Basic Science Funding Mechanisms

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US Office of Naval Research Global (ONRG)

Abstract.

In this presentation we describe the Basic Science Funding Mechanisms offered by the US Office of Naval Research Global for

(i.) scientific projects of up to 3 years in duration,

(ii.) the organization of conferences, workshops or symposia,

(iii.) prospective trips to the United States to visit / explore / discuss possible collaborations or new ideas with Navy personnel, and

(iv.) the yearly issued ONR Global-X Challenge.

The proposed Research Projects may be experimental or purely theoretical. The aforementioned funding mechanisms are open to all scientists and researchers living and working outside the United States, regardless of their nationality. Formatting, topics of interest, windows of opportunity and practical considerations are included in this presentation. Emphasis is given to Science, Technology, Engineering, Mathematics, Materials Science and Computer Science (including Artificial Intelligence). However, there are also opportunities to scientists working in other fields.

Arturo A. Ayón received his BS in Electronic Engineering from Universidad de Guadalajara in 1983, and his MS and PhD in Nuclear Science and Engineering from Cornell University (Ithaca, NY) in 1992 and 1996, respectively. In the corporate world, while working for IBM in the 1980's, he served as Engineering Liason in Rochester, Minnesota, and later as Manufacturing and Quality Engineering Manager in Guadalajara, Mexico. Subsequently, while working for Sony (2000-2003), he served as Director of Microsystems in San Antonio, Texas. In the academic world, he served as a Scientific Researcher at the Massachusetts Institute of Technology in Cambridge, Massachusetts (1996-2000), where he participated in the development of micro-turbomachinery and micro-rockets (~1 cm^2), efforts that paved the way to a new area of research presently known as Power MEMS which will hold its 23rd International Conference in Norway in 2024. He is currently a full professor at the University of Texas at San Antonio (2003-Present), where he has conducted and supervised a variety of research projects related to sensors, actuators, metamaterials, biomedical applications, quantum dots, photovoltaic structures and plasmonics, among others. As far as intellectual property is concerned, the technologies developed by professor Ayón's group have won twice the $100k Student Technology Venture. In July, 2022, Dr. Ayón relocated to São Paulo, Brazil, to serve as Science Director in the U.S. Office of Naval Research Global, to create strategically valuable relationships with the international Science and Technology community by (i.) seeking and identifying high-quality / high impact scientific research around the world, (ii.) promoting collaborations between researchers in the international community at large and personnel in the Naval Scientific community, (iii.) supporting the progress and diffusion of scientific knowledge, and (iv) funding ground-breaking scientific research projects engaged by universitites / laboratories in the international arena in order to fulfill ONRG's objectives, namely, obtain, coordinate and make available worldwide scientific information and become the partner of choice for Science and Technology leaders.