







## TRAINING COURSES AND SEMINARS ON ADVANCED MATERIALS AND RENEWABLE ENERGIES

The Laboratory of Physics of Materials and Systems Modeling (LP2MS) and the Department of Physics organize training courses and seminars on advanced materials and renewable energies, from April 30th to May 3rd, 2018 according to the program below. This training will be provided by professors Purusottam (Puru) JENA, Distinguished Professor of Physics at Virginia Commonwealth University USA and Rajeev AHUJA from the department of Physics and Astronomy at Uppsala University Sweden. Uppsala University is one of the oldest university from Northern Europe (since 1477) and ranked top 60 universities in the world and department of Physics & Astronomy ranked 34<sup>th</sup> in the world.



**Prof.** Puru JENA's research covers a wide range of topics in nano-structured materials, condensed matter Physics and materials Science. These include structure and properties of metals, semiconductors, superconductors, alloys, liquid metals, point and complex defects, surfaces, thin films, atomic clusters, and cluster assembled materials. His current research is focused on three major areas: Structure and properties of nano-clusters and cluster assembled materials (0 D), nanotubes and nanowires (1D) and mono- and multi layered materials (2D) with emphasis on energy storage; electronic, magnetic, and optical properties. Prof. Puru JENA is the author of nearly 600 papers including 13 edited books,

16 review articles/book chapters,  $\sim 510$  original papers in peer reviewed journals, 54 publications in refereed conference proceedings, 2 reports, and 3 patents with Web of Science: H-index: 67 and Total citations >18000, Google Scholar H-index: 78, Total citations: 25000. He has given over 425 invited talks in international conferences and academic institutions in 31 countries around the world and has organized 55 international



conferences.

**Prof. Rajeev AHUJA:** Professor at the University of Uppsala in Sweden, Head of a very large group that develops research in condensed matter physics. Its axes and research themes relate to: Crystal structure prediction from first-principles: random search and metadynamics simulations, Solar cell, Organic batteries, Molecular electronics, Hydrogen storage and Solar fuel production (Photoelectrocatalysis). Prof. AHUJA's group is interested in the development of computer-aided theoretical methods for advanced materials. Their models are always built on quantum mechanics and can describe the

properties of alloys, compounds and molecular complexes at the atomic level. He has supervised 25 Ph.D, students as main supervisor. Professor AHUJA has published more than 764 publications in international journals. (5 in Nature, 1 in Science, 25 in PNAS, 35 in PRL, 4 in Nano-Letters, 4 in Ang. Chem., 2 in Adva. Funct. Mat., 1 in Energy & Envior. Sci.& 4 in Nano Energy), Total No. of citations: more than 24000, H-index : 72. He is one of the most highly cited researchers in Sweden under 52. Prof. Ahuja has been awarded the Wallmark prize for 2011 from KVA (Royal Swedish Academy of Sciences), Stockholm. This award is presented to young scientist (only one scientist every year covering all fields of natural sciences) from King of Sweden.

## **PROGRAM**

Monday 30/04/2018	9h-12h	Title: Nano-materials for Energy Storage and Conversion (Part-I) (Prof. Puru Jena)
Monday 30/04/2018	15h-18h	Title: <i>Exploring Materials through Advanced Computational</i> <i>Materials Science (Part-I)</i> (Prof. Rajeev Ahuja)
Wednesday 02/05/2018	9h-12h	Title: Exploring Materials through Advanced Computational Materials Science (Part-II) (Prof. Rajeev Ahuja)
Wednesday 02/05/2018	15h-18h	Title: Nano-materials for Energy Storage and Conversion (Part-II) (Prof. Puru Jena)

## LOCATION OF TRAINING AND SEMINARS

Conference room of the Faculty of Sciences Meknes

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