

ACT Research Fellow on Advanced Energy Systems

(posted: 29/07/2005)

The European Space Agency's Advanced Concepts Team (ACT) is currently looking for highly motivated young researchers, with good analytical and communication skills and excellent aptitude for team work.

Successful candidates for this position will carry out research in the Advanced Space Power Systems field at ESTEC for a maximum of 1 + 1 years (maximum) and will in particular perform the following tasks:

- Propose and investigate novel power generation and energy storage concepts and technologies, either currently available or expected to become available in the future and assess their relevance to future space missions.
- Define concepts and research studies to be further investigated in close cooperation with university groups
- Areas of research will include: fuel cells, hydrogen production and storage technologies, supercapacitors, photoelectrochemical processes. Particular attention will be given to research on miniaturisation and applications of micro/nano power generation and energy storage systems.
- Provide expertise in energy storage-related technologies and equipment, in support to applied research by other ACT members.
- Study and/or develop mathematical tools, models and techniques where relevant, related to the tasks described above.
- Participate, with the rest of the team, in the assessment of proposed space system concepts (these not being restricted only to the power field) and propose new concepts and assessment studies.
- Provide consultancy and support specific activities in the Concurrent Design Facility (CDF) at ESTEC and for other ESA activities when this is required.

The candidate should hold a degree in Physical Chemistry or Chemical Engineering with solid background in Electrochemistry.

He or she should also have completed (or be about to complete) a PhD in Physical Chemistry or Chemical Engineering, the subject of the thesis being relevant to the description of the tasks outlined above.

Having good links with universities and research institutes and a strong interest in space science and / or technology are also essential requirements.

The general conditions of eligibility of the ESA Research (Internal) Fellowship Program should be fulfilled; these can be found at http://www.esa.int/SPECIALS/Careers_at_ESA/SEM19DXO4HD_0.html.

Applicants should send their CVs and covering letter, stating their research interests to: act@esa.int

Deadline for application submission is 15/09/2005. However please note that applications will be given consideration until the position is filled, so early applications are encouraged.