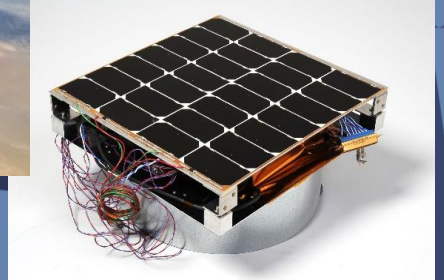


Space Solar Researcher

U.S. NAVAL
RESEARCH
LABORATORY



Space solar is an emerging potentially revolutionary technology in which sunlight would be collected in space and then transmitted for use on the Earth. It could have profound impacts for the future of energy for defense, diplomacy, and global development. This position involves engaging with existing and proposed state-of-the-art space solar technology development programs in DOD, including those concerning space structures, system architectures, space robotics, and other functional elements. The researcher will perform system, subsystem, and component development and design for a range of use cases, and plan and execute technology development and test campaigns to realize space solar's prospective utility. Building on the foundation of previous NRL and DOD studies, demonstrations, and flight projects the researcher will architect technology development roadmaps and spearhead progress towards realizing practical, deployable systems. The researcher will construct both demonstration scenarios and perform system design for one or more of the following: precursor ground demonstrations, demonstrations with elements in space, and full space-to-ground demonstrations and systems. NRL subject matter experts will be engaged in the iteration of these concepts.

MAJOR DUTIES/POSITION DESCRIPTION

- Independently define, lead, and manage highly challenging and innovative technical activities related to space solar and its applications.
- Formulate and guide solutions to very difficult problems in advancing space solar technology and research.
- Lead/sole author on scientific papers, journal articles, or review articles documenting major advances.
- Prepare & deliver invited or contributed papers at international conferences & give policy-level briefings.
- Defines technology area strategy & resource allocations for in-house and contractual programs.
- Conduct overall program planning & coordination and/or program documentation.
- Develop strategy to leverage resources from other agencies.
- Work to stimulate development of customer alliances for several research and/or development areas.
- Generate strategic research objectives and/or business plans for core technical areas.
- Recognize warfighting trends, relate business opportunities and convince lab management to develop/acquire expertise and commit funds.
- Organize, lead, and market overall technology transition and transfer activities for organization at senior executive and command levels.
- Creates an environment that encourages widespread exploitation of both national and international technologies.



MINIMUM REQUIREMENTS

US Citizenship required for all positions.

Ability to obtain and maintain a DoD Security Clearance.

Minimum 3.5 GPA.

MS or PhD in Electrical Engineering, Physics, Aerospace Engineering, Mechanical Engineering, or other suitable area.

RELEVANT PUBLICATIONS

“NASA to reexamine space-based solar power - SpaceNews.” <https://spacenews.com/nasa-to-reexamine-space-based-solar-power/> (accessed Jun. 08, 2022).

M. Soltau, “A UK study of Space Solar Power – helping to deliver Net Zero,” Sep. 2021.

C. T. Rodenbeck et al., “Microwave and Millimeter Wave Power Beaming,” IEEE Journal of Microwaves, vol. 1, no. 1, 2021.

P. Jaffe et al., “Opportunities and Challenges for Space Solar for Remote Installations,” U.S. Naval Research Laboratory, Washington, DC U.S.A., Memo Report NRL/MR/8243--19-9813, Oct. 2019. Accessed: Apr. 21, 2020. [Online]. Available: <https://apps.dtic.mil/sti/pdfs/AD1082903.pdf>.

JOB BENEFITS

The Department of the Navy offers a comprehensive benefits package that includes, in part, paid vacation, sick leave, holidays and a 401K-type retirement plan. For additional details visit <http://www.secnav.navy.mil/donhr/Benefits/Pages/Default.aspx>

HOW TO APPLY

<http://www.nrl.navy.mil/careers/opportunities/>
