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<th>PLATFORMS</th>
<th>ENERGY AXIS</th>
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| **Micro and nanotechnology platform - clean room, Hugues Granier (1 hour)**  
The micro and nanotechnologies platform, part of ReNaTech national network, operated by a 36 members technical staff offers more than 200 equipment to support internal and external projects. | **Energy Building, Marise Bafleur, Ilias Papas (45 min)**  
The Energy Platform is an instrumented experimental building for the implementation and testing of energy management technologies (hardware and software) within a context of renewable energies and storage technologies deployment. | **A nanosatellite optoelectronic payload dedicated to radiation induced degradation measurement in erbium doped fiber, Arnaud Fernandez (30 min)**  
NIMPH nanosatellite mission and more precisely its embedded metrology setup designed by LAAS-CNRS and Paul Sabatier University researchers will be presented. | **Active binaural localization of a sound source, Patrick Danès (30 min)**  
This demo shows how a mobile robotics head endowed with two ears can analyze its sensorimotor flow and control its motion so as to localize a sound source in the “most informative” way. |
| **Characterization platforms, Sandrine Assie-Souille (1 hour)**  
To perform research at the frontier between technology and biology, LAAS-CNRS has designed a unique facility to exploit our micro/nanosystems for the analysis and manipulation of biological samples. | **Photovoltaic low voltage dc microgrid for building with energy storage systems, Lionel Séguier (20 min)**  
In order to develop and improve strategies for sustainable energy management, a low voltage direct current (LVDC) micro-grid (MG) including task scheduling algorithms and dedicated power electronic converters has been deployed in the ADREAM Building-Integrated Photovoltaic (BIPV) of LAAS-CNRS. | **Embedding an optimization-based control strategy for spacecraft rendezvous on a LEON 3 processor: about the software development platform and the Hardware-in-the-loop demonstrator, Frédéric Camps, Christophe Louembet (30 min)**  
An optimization-based controller has been embedded on a synthesized LEON3 microprocessor. We focus here on the software development, compilations chains and HIL demonstrator construction | **High resolution 3D printing and bioprinting: application to microfluidics and cell culture, Julie Foncy, Rémi Courson, Fabien Mesnilgrente & Nicolas Bernardin (1h30)**  
Multifab is an open platform devoted to the development of innovative multi-scale and multimaterial 3D printing technologies with applications in microelectronics, integrated optics, microfluidics and biology |
| **Humanoid Robotic, Olivier Stasse, Philippe Souères (30 min)**  
The humanoid robotics platform has two robots of human size: the HRP-2 humanoid robot, and the first robot of the TALOS series: Pyrene. They are very challenging experimental platforms use to test algorithms for motion generation. | **Pioneering GaN technology - Start-up EXAGAN, David Tremouilles & Eric Moreau (30 min)**  
Discover EXAGAN / LAAS research and development partnership on new Gallium Nitride (GaN) power components for energy management. | **RF and microwave energy harvesting for space applications, Alexandru Takacs (30 min)**  
This presentation highlights the recent advances in the field of the RF and microwave energy harvesting onboard of broadcasting satellites in order to power autonomous wireless sensors. | **BIOSOFT Labcom, Jean-Christophe Cau, Emmanuelle Trévisiol, Christophe Vieu (30 min)**  
In the framework of an original Public/Private partnership, BIOSOFT Labcom develops new methods of soft lithography (mainly Micro-Contact Printing and Capillary Assembly) for the biomedical field. |