



Florida State University Center for Advanced Power Systems FSU-CAPS

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Center for Advanced Power Systems



Established in 2000

Focusing on **research** and **education** related to application of new technologies to electric power systems

Closely affiliated with **FAMU-FSU College of Engineering**

44,000 ft² laboratories/offices, **DOD cleared at secret level**

Tenure/Non-tenure track **faculty**, **Ph.D./M.S./B.S. students**, **staff researchers & post-doctorial associates**, and **facility support**



Over **\$35 million** specialized **power and energy capabilities** funded by ONR, DOE, NSF and Industry



Lead university of the ONR funded Electric Ship Research and Development Consortium (**ESRDC**)



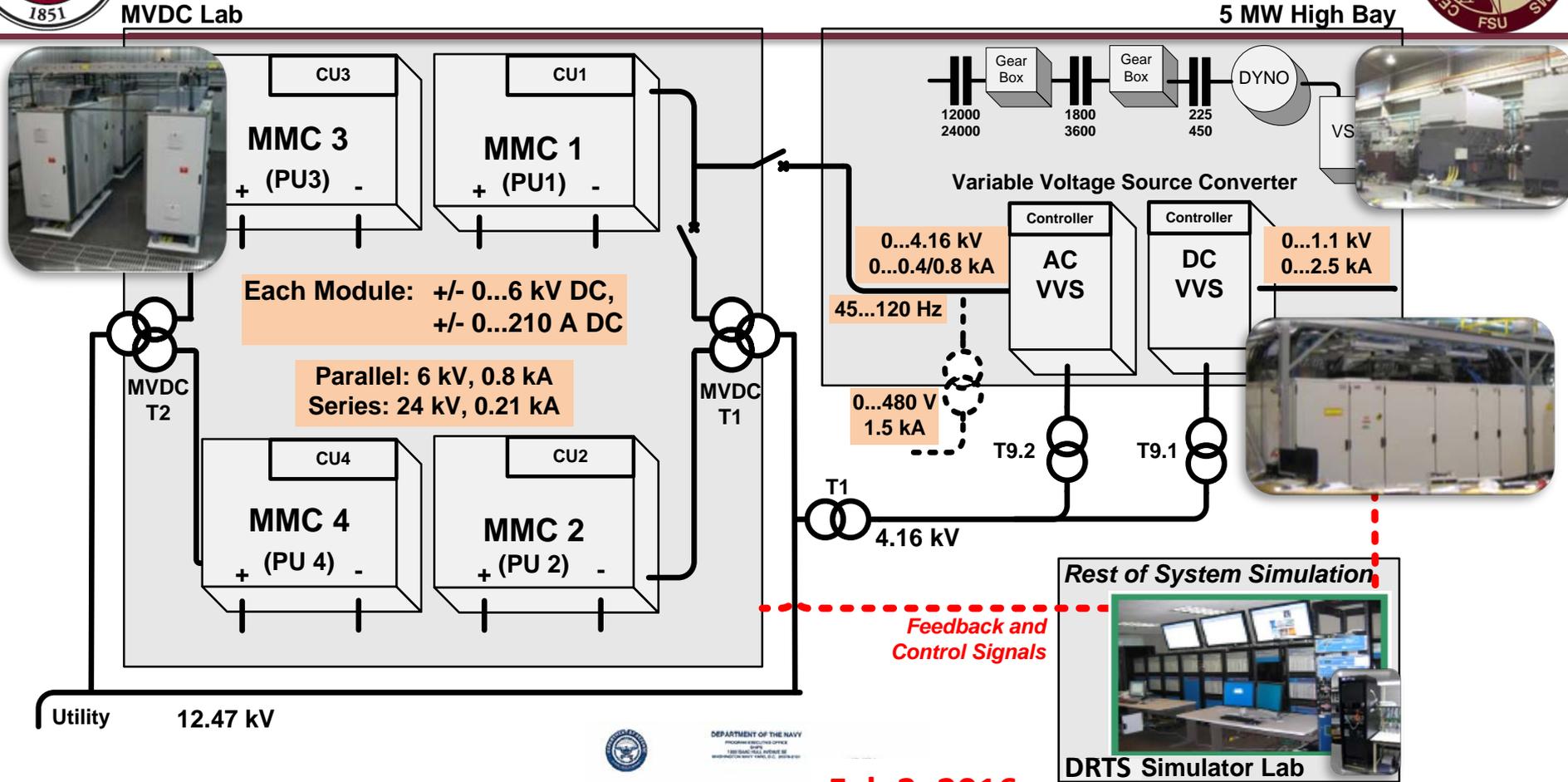
Contracted by **NAVSEA – PMS320** to conduct HIL based demonstrations of advanced P&E technologies



Also funded from DOE-EERE, EPRI, and other industry partners (e.g. STTR/SBIR, others)



FSU-CAPS 3 x 5 MW Facilities



Navy accredited CAPS for PHIL based performance verification of AMDR PCMs



DEPARTMENT OF THE NAVY
PROGRAMS AND OFFICE
NAVY
INSTANTIAL AVIATION
RESEARCH AND DEVELOPMENT

From: Electric Ships Office, Director (PH0125)
To: Distribution
Subj: ACCREDITATION OF FLORIDA STATE UNIVERSITY, POWER SYSTEMS POWER HARDWARE IN THE LOOP SYSTEM FOR THE AIR AND MISSILE DEFENSE RADAR POWER CONVERSION MODULE DOG-81 FLOTTM III ELECTRODUAL SELF INTERDISCIPLINARY SIMULATION
Ref: (1) Modeling and Simulation Stewardship Plan, Electric Ships Office, PH0125, April 2013.
(2) DoD Modeling and Simulation (PHIL) Verification, Validation, and Accreditation (VVAA), DoD Instruction 5000.41 of 1 Dec 2009.
(3) PHIL Testing of AC/DC Power Conversion Module Plan for Accreditation of PHIL Simulation Test Environment - Center for Advanced Power Systems - Florida State University, Version 1.0, 9 June 2014.
(4) Validation and Verification for a Power Hardware-in-the-Loop (PHIL) Representation of Megawatt Power Conversion Module Interface, Naval Surface Warfare Center, Philadelphia Division, Technical Report NSWCDD-10-2015-28, October 28, 2015.
(5) Multi-Scope 4000 Generator and Real Time Digital Simulator (RTDS) / MATLAB/Simulink PC-based Co-simulation Implementation, Verification and Validation Report, Center for Advanced Power Systems - Florida State University, Version 1.0, 4 April 2014.
(6) Verification and Validation Report: Large Load Model, RTDS Implementation, Center for Advanced Power Systems - Florida State University, Version 2.0, 25 April 2014.

Feb 3, 2016



