

ENERGY HARVESTING IN DAMPING TECHNOLOGY

INNOVACE 2021

REGISTRATION

Applicants must register at the beginning of the processing period by email to innovace@ace-int.eu. The accompanying professor should be named.

PRIZE

The winning team or individual will receive a prize of \$5,000. The accompanying professor will receive additional support in the amount of \$2,000.

EVALUATION CRITERIA

Concept (40 points):
Detailed technical concept

Functionality (40 points):
Proof of the functionality/feasibility of the created design (test setup or plausible feasibility study)

Costs (20 points):
Plausible cost breakdown in relation to the energy gained

CALL FOR COMPETITION

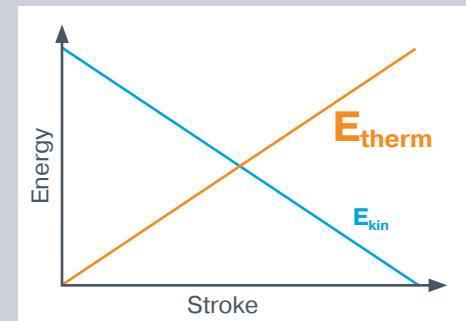
The product portfolio of Stabilus and ACE Controls Inc. includes a wide range of damping techniques, speed control and vibration control. In many applications, the purpose of the damper is to convert kinetic energy into thermal energy.

The dampers are filled with a damping medium – usually hydraulic oil or nitrogen. The energy released during the damping process and the movement of the piston rod have not been used to date to generate energy. The aim is to find a way of harnessing this energy, for example to supply sensors or communication devices autonomously.

A design draft with technical proof of functionality and feasibility is expected. Usable energy, lifetime durability and product costs (manufacturing/purchasing costs) should be addressed.

For illustration purposes, a self-selected application can be used to provide a detailed calculation of the acting forces and resulting energies, as well as the usability.

Should any questions arise regarding the functionality of the dampers, ACE's experienced application engineers are of course available to assist you.



START DATE

May 1, 2021

CLOSING DATE

September 30, 2021

CONTACT

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innovace@ace-int.eu

AWARD CEREMONY

November 2021

QUESTIONS

For questions we will hold a web conference on May 17 at 2:00 pm EST. Please register via email by May 13. Further questions can be clarified by phone or mail during the processing period.

