

Course Announcement

Introduction to Beamforming for Noise Sources Localization

Lecturer: Dr. HORVÁTH Csaba, PhD, Assistant Professor
Location: R 102, Bldg. 10.95
Date + Time: 20 March 2018, 10:00 – 12:30
20 March 2018, 14:00 – 16:30
22 March 2018, 10:00 – 12:30

Learning Outcomes:

Participants will have a grasp of the basics of phased array microphone beamforming technology. The gained knowledge will provide a solid basis for independently studying and applying the technology in aeroacoustic investigations.

Contents:

The course will introduce the participant to the basics of phased array microphone measurements and the processing of the data using beamforming technology. The course is split into three consecutive parts, each of which starts with a 90 min lecture followed by 60 min of discussion.

The **first part** of the course will introduce the participants to single and phased array microphone measurement techniques and various difficulties associated with carrying out measurements. The **second part** of the course will focus on the processing of the results using basic beamforming technology, introducing basic beamforming methods in the time as well as frequency domain. The **third part** of the course will focus on advanced beamforming methods, introducing the participants to techniques applied in the investigation of rotating noise sources, and to eigendecomposition based beamforming methods.

Limited number of participants, registration in the secretary's office at ISTM is required until 16 March, selection procedure in case of over-booking, details can be found at the web page.

