

第337回GMSI公開セミナー／第160回CIAiSセミナー／第82回WINGSセミナー

Invitation to acoustic measurement and analysis

Mr. Yutaka Ishii (HBK, HOTTINGER, BRÜEL & KJÆR)
Dr. Tatsuya Ishii (JAXA)

Date: Wednesday, 25 December, 2019, 15:00-17:00
Venue: 31A, 3F, Faculty of Engineering Bldg. 2

Abstract:

Sound is such a common part of everyday life that we rarely appreciate all of its functions. Sound provides enjoyable experiences such as listening to music or to the singing of birds, while too often in our modern society, sound annoys us. Many sounds are unpleasant or unwanted that are called noise. However, noise is an unavoidable part of everyday life and technological development has resulted in an increase in noise level from machines, factories, traffic etc. Therefore, measuring sound/noise is important to take step towards a reduction in noise. This lecture describes the basic principles of sound and sound measurement as a first step toward fighting against noise. And more, the basic frequency analysis of sound is described.

In addition, an example of noise measurement and analysis is introduced with regard to a jet engine operated in an open test site.

Contents: 1~4: HBK, 5~6: JAXA

- | | |
|--|-----------|
| 1. Basic concepts of sound | ~ 25 min. |
| 2. Measuring microphones and sound measurement | ~ 25 min. |
| 3. Principles of frequency analysis | ~ 25 min. |
| 4. Q&A | ~ 15 min. |
| 5. Example of noise measurement and analysis | ~ 20 min. |
| 6. Q&A | ~ 5 min. |