


**Science and Technology in Japan (July 6<sup>th</sup> - July 14<sup>th</sup>, 2023)**  
**Lecturer Profile, Abstract of Lecture and Field Trip**

<b>Introduction to Mobile Robot Control: From Theory to Practice</b>	
Date: July 13th	Lecturer: IBUKI Tatsuya
<p>Abstract of Lecture:</p> <p>This lecture offers opportunities to learn the basics of position/attitude control of mobile robots, such as quadrotors and ground vehicles. The first session is to study theory subjects: derivation of motion dynamics; design of control laws; and stability analysis of the resulting control system. Here, the necessary prior knowledge is only basics of mathematics and physics. The second session is to experience the practice: implementation of the control laws in computer simulations and experiments with a quadrotor testbed. While this practice verifies the theoretical analysis in a sense, practical issues are also raised by handling real robots. The objective of this course is to learn one of essential skills of engineers/scientists, from the control engineering perspective.</p>	
	<p>IBUKI Tatsuya Senior Assistant Professor Department of Electronics and Bioinformatics Research Interest: Control Engineering</p>