

KIKUMOTO LAB.

Environmental Sensing and Design



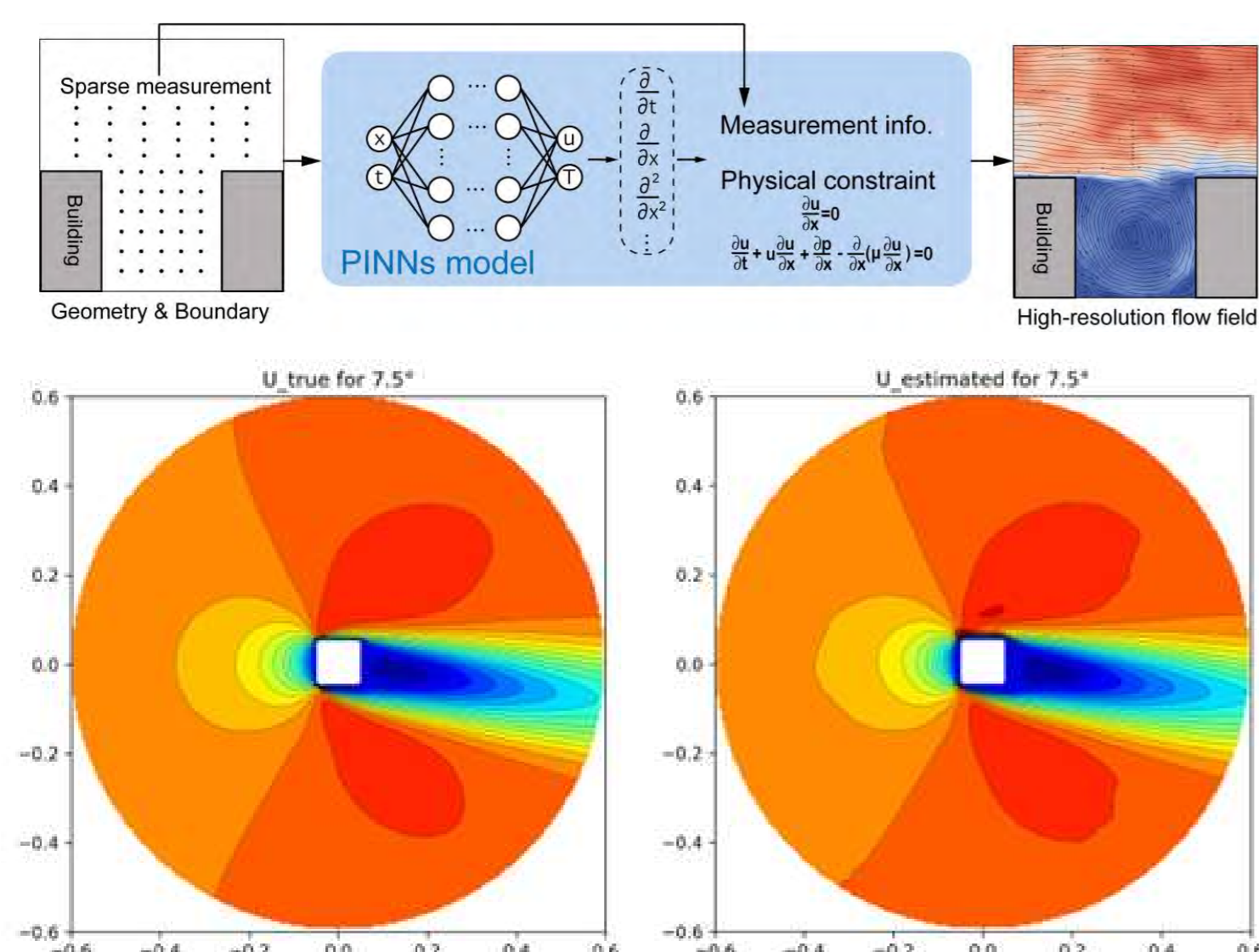
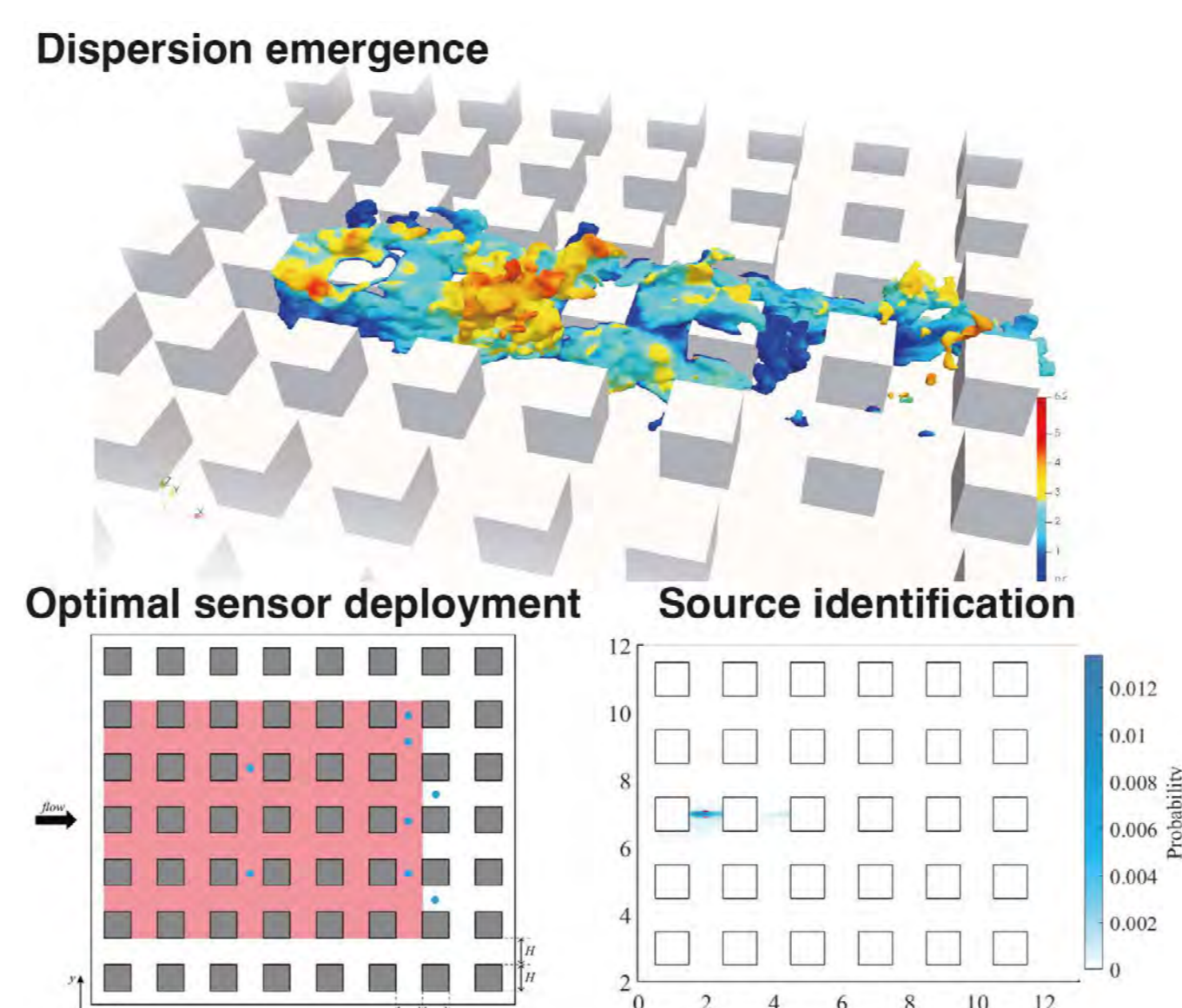
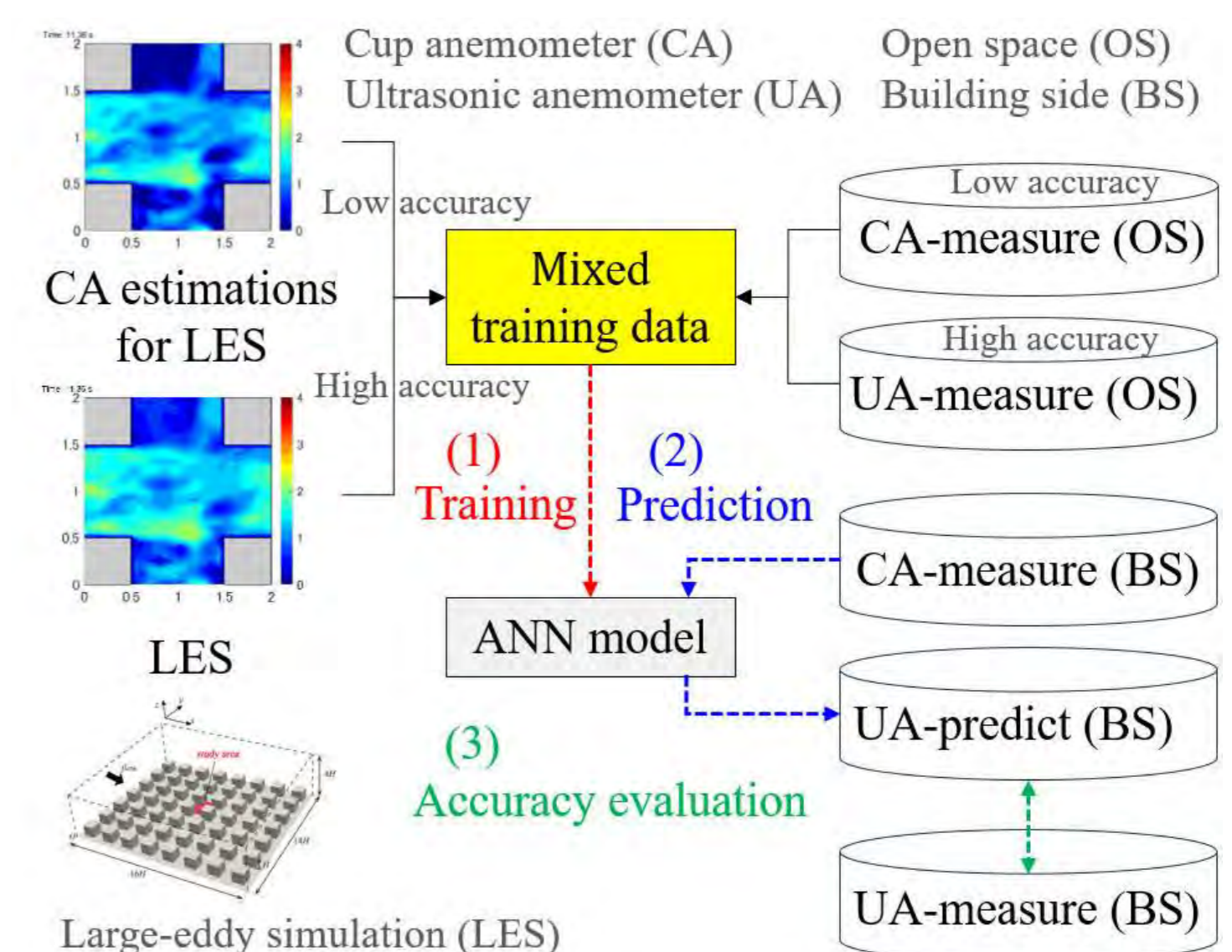
Department of Human and Social Systems

Control Engineering of Complex Environmental System
Department of Architecture, Graduate School of Engineering<https://www.iis.u-tokyo.ac.jp/~kkmt/>

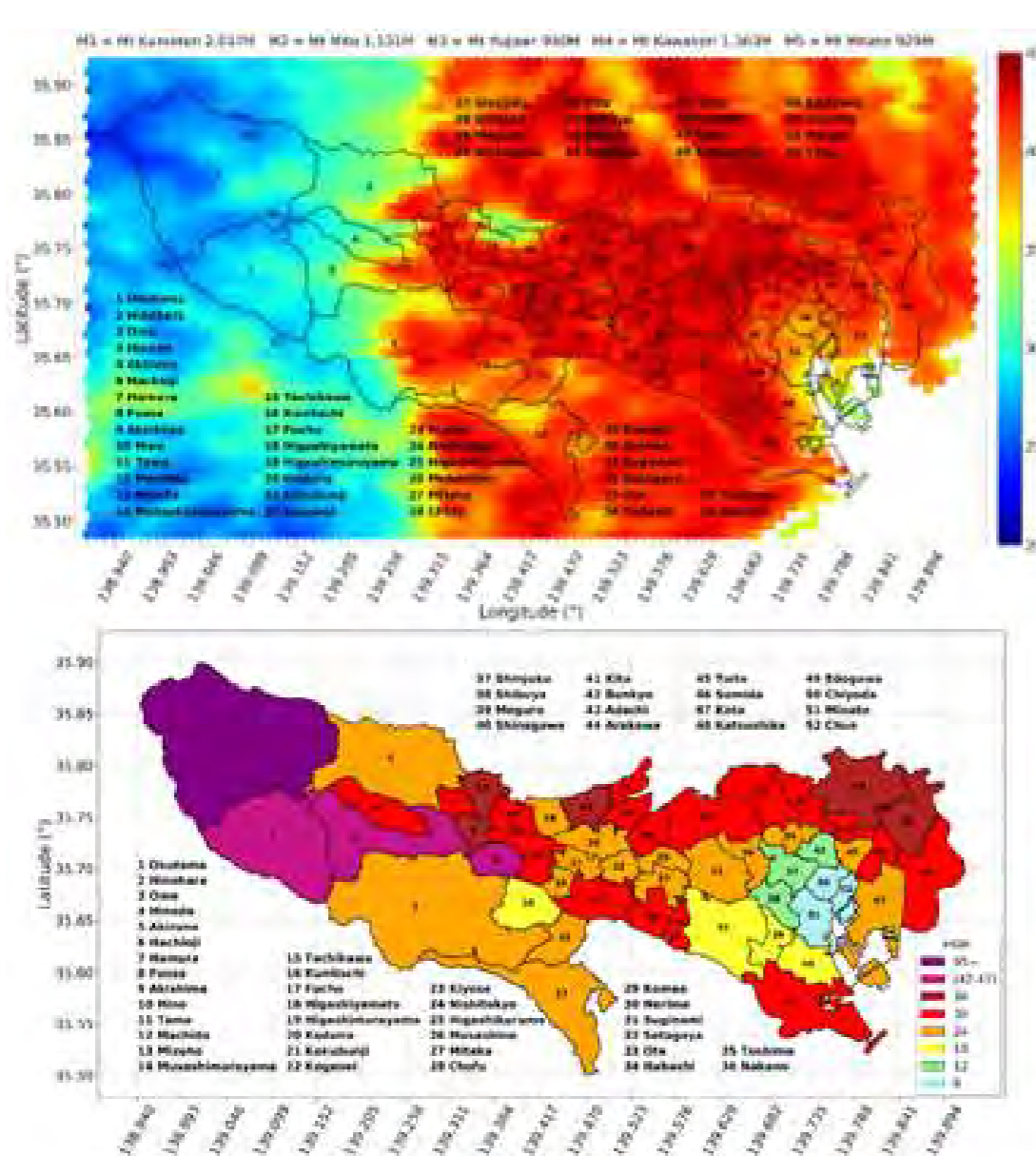
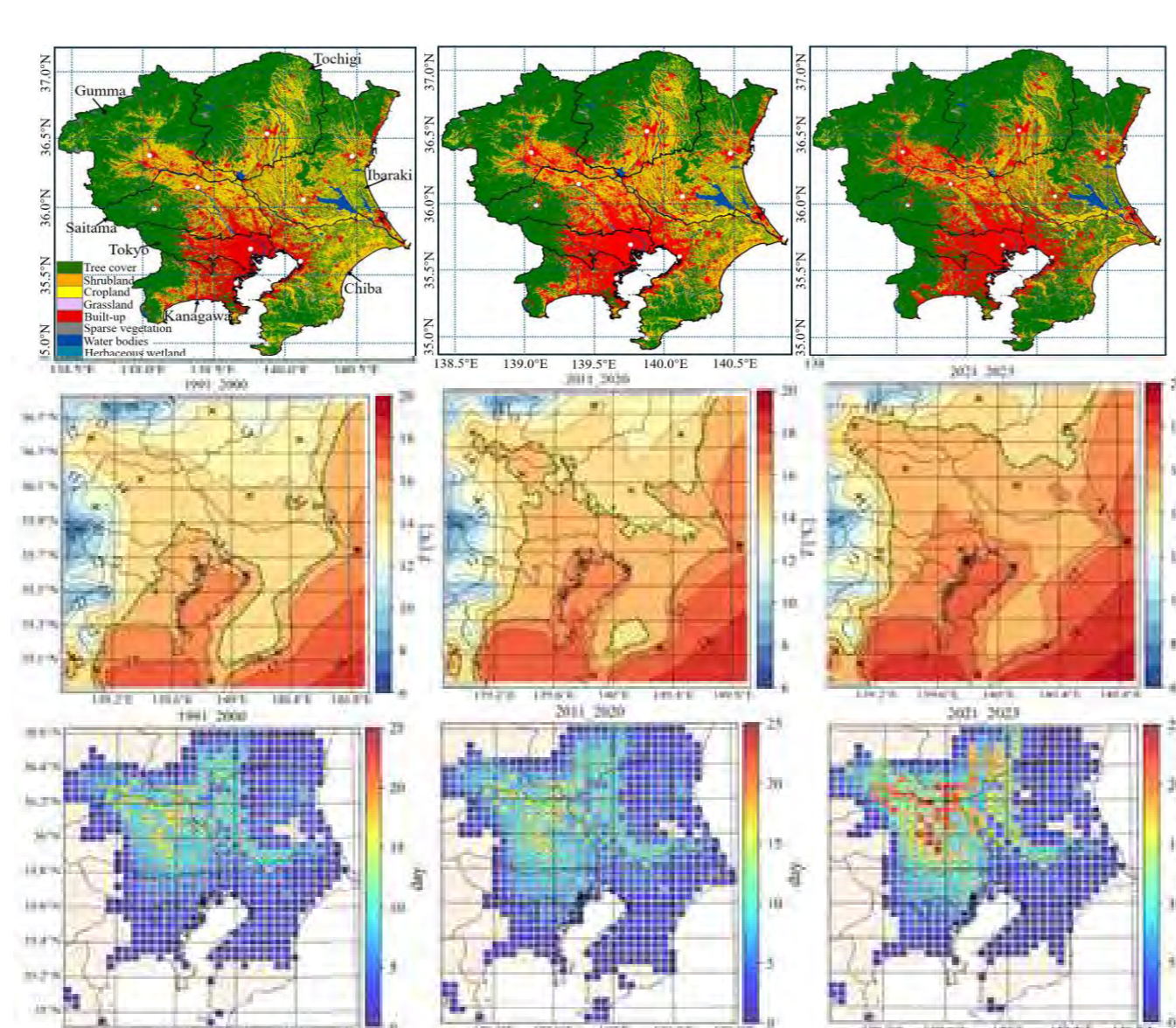
Enhancing Environmental Sensing and Design

Creating safe, comfortable, and smart urban and architectural spaces requires a deep understanding and prediction of current and future environments, as well as design and control based on this knowledge. Our laboratory is engaged in the development of environmental sensing technologies based on advanced monitoring and simulation and their application to environmental design, mainly for air and thermal environments, utilizing computing and digital technologies.

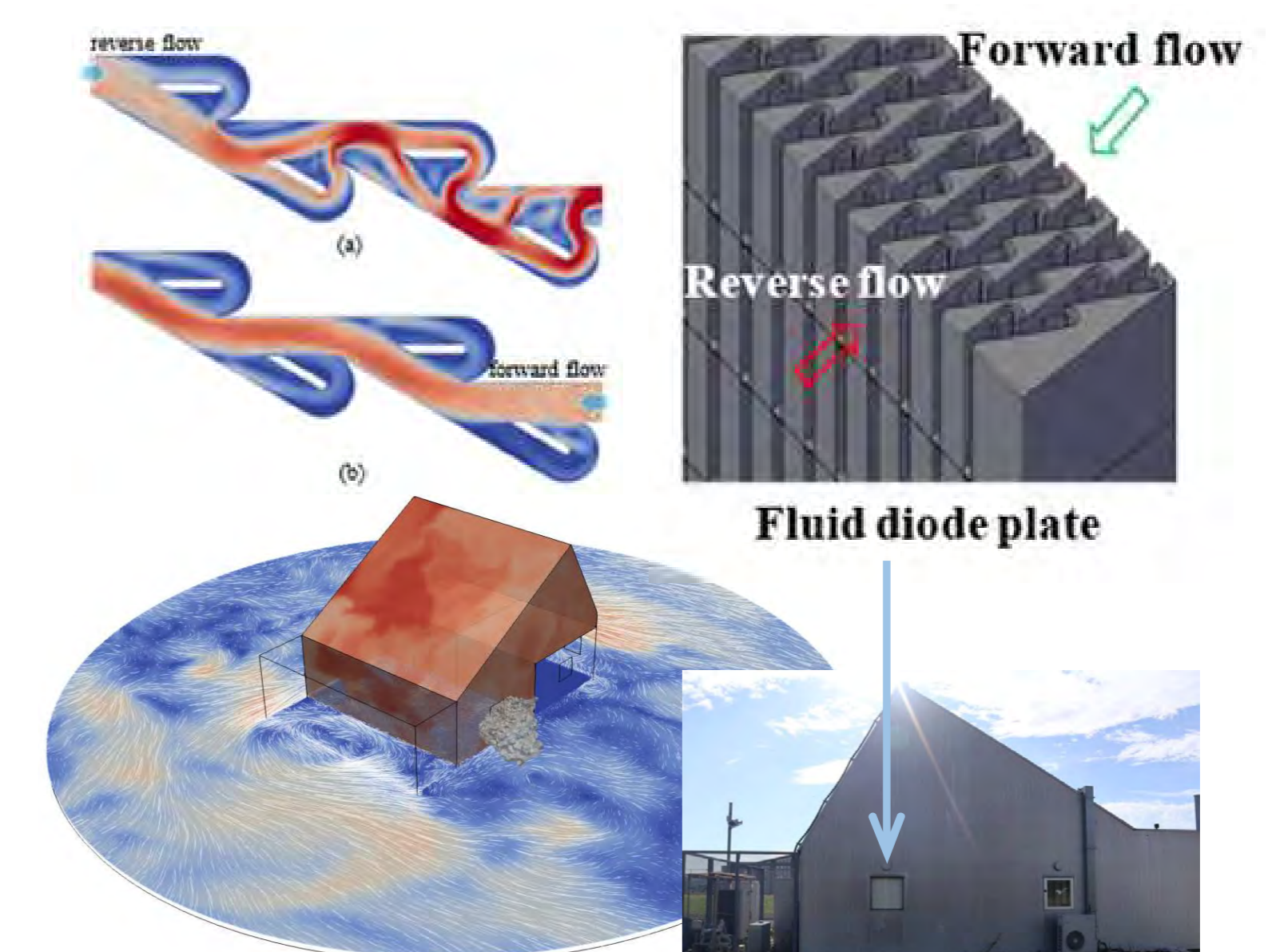
Innovative Environmental Sensing utilizing Computing and Digital Technologies

Environmental Soft Sensing by fusing
Physical Models and DataInverse Analysis and Sensor Placement
Optimization of Environmental FactorsImprovement of Environmental Sensor
Accuracy using Data-driven Methods

Future-oriented Urban Environmental Sensing

Analysis of Urban Environmental
Change and Impacts on Health, etc.Urban Environmental Information
Analysis by Data Fusion

Smart Building Environment Control

Advanced Natural Ventilation Control with
High Functional Components