**Tadahiko Murata**

1st Talk

Theme:
**Multi- and Many-Objective Optimizations Using Evolutionary Computation Methods**

In the complex world, we are facing challenges with multiple objectives to be tackled. In multi-objective optimization problems, an optimization method tries to find a set of non-dominated solutions rather than a single solution. When the number of objectives becomes many, the diversity of non-dominated becomes high. In those problems, it is important the proximity and the diversity to/on the true Pareto solutions. Evolutionary computation is known as one of good optimization methods that find better sets of non-dominated solutions. In this talk, the lecturer gives the fundamental knowledge in evolutionary computation methods for many-objective optimization problems and current applications in this research area.