

GAN-based Robot Modeling and Its Application to Autonomous Manufacturing

Project Leader: Jun MORIMOTO

Head of Department , Brain Information Communication Research Laboratory Group,
Advanced Telecommunication Research International (ATR)



R&D Team: Nara Institute of Science and Technology

Summary:

- We develop an GAN-based robot and human movement modeling algorithms for autonomous manufacturing.
- We focus on the development of robot control methods to **adaptively assemble a variable amount of different products** based on the modeling algorithms.
- We construct an algorithm that **extracts an assembling strategy from a human expert** and use the extracted strategy as an objective function to derive assembling movements on a simulated environment.
- We use GAN-based modeling algorithms so that the derived assembling controller can be **transferred to real environments**.

