

## Advanced Bio-Electronics

We aim to acquire basic knowledge for understanding electromagnetic fields and living organisms, bioelectric phenomena, biometric information measurement, electrical properties of cell membranes, ion channels, etc. In addition, "uncertainty / ambiguity" that should be avoided in Von Neumann information processing (computer) plays an essential role in the expression of biofunction, and "probability" that the target changes autonomously according to changes in the situation and environment. Learn the "target fluctuation" function from attractor selection law, stochastic resonance, and Langevin equation. Furthermore, we will deepen our understanding of the crystal structure that determines the electronic state of biomolecules, and the formation of nanostructures by self-organization and dissipative structure.