

### **6.3. Mathematical Research**

Mathematics provides the framework for understanding almost any complicated phenomenon. Advanced mathematical techniques are used to model and test products on computers, optimize production techniques and have interplay with various systems. Advancing mathematical research helps to build strong scientific community capable of technology generations and new innovations. Despite its immense role, research in mathematics is not being conducted to its best level.

Thus, recognizing the importance of mathematical researches to the building of strong scientific bases for technology generations and innovations, the Mathematical Research Sub-theme set out a research priority to study 'Modern Techniques in Optimization, Mathematical Models in Stochastic Differential Equations and Queuing Theory' from the following specific project components' stand point.

- Modern Optimization Techniques;
- Stochastic Differential Equation and Queuing Models;
- Algorithms in Fixed Point Theory;
- Ring theory and Boolean Algebra;
- Computational Mathematics.