

THE EFFECT OF TECHNOLOGY DEVELOPMENT ON MANPOWER OF IC INDUSTRY IN THAILAND. THESIS ADVISOR : ASSO.PROF. SIRICHAN THONGPRASERT, Ph.D., ASST.PROF. PRAYOON CHIEWWATTANA, 106 PP

The objective of this thesis is to study the effect of technology development on manpower of IC industry in Thailand for the next 5 to 10 years by emphasizing on the number of labour forces, technicians and engineers.

Of which the method to measure manpower, the queueing theory has been applied to determine the optimal cost in order to measure the proportion of machinery to technicians. After that, the number of engineers which has the relationship with the number of technicians is calculated.

The result of the research shows that the change in technology which provides the more efficient manufacturing equipment in terms of speed and reliability will decrease the number of labor forces, technicians and engineers in the assembly line. The increase in production capacity will also result in the capacity expansion of the testing department which will increase the number of labour forces, technicians and engineers in the department.

In conclusion, when considering a system as a whole, the demand of labor force, electricians, mechanics, electrical engineers and mechanical engineer in the next five years will be 16,858, 2,200, 943, 687 and 254 people respectively.