

Proposal for project on:

Nanotechnology enabled RFID solution modeling and development

Objective: To develop RFID based on current developed in MEMS and Nanotechnologies

Brief Synopsis: RFID are benefitting from the current developments of MEMS and CNTs where new antenna, transponders, low energy devices are being proposed and implemented. The major challenge though here is Reliability and Packaging of these devices. In this project we want to implement modeling, reliability, analysis of Nano RFID systems and foster their integration in real devices. We have studied comprehensively about the commercial status of RFID which has been shown in this summary and we plan to implement real products in form of Nano enabled RFID which will see application in diversified areas. Preliminary work in this regard has been done by our team (in form of research publications) and we plan to extend our work in gathering rich IP and strong research pillars to support our project.

Introduction

RFID technology is still to realize its true potential, with the growing applications and development in low power devices RFID will integrate into many useful products and will have many features which will add value to its current state. In this executive summary for project we have described the challenges and planning of implementing the nanotechnology enabled RFID with special features. The market, companies, planning and the product development has been explained. Business in Nano enabled RFID is an important area also because its links are there with the new world order. The need for low power and highly efficient need of RFID is eminent, which will be used in almost all application of Business.

Objective of our project is realization, research and application. For this we are aggressively working on enhancing our business plans as well to get groundbreaking research to be published in peer reviewed conferences and journal. We have made a good progress currently in this regard but with no source of external funding progress in our work have rather been some slow.

COMPANIES IN INDIA AND WORLD

In our survey for this project we have gathered the current companies which work in RFID and will shift to nano enabled RFID for adding more features in the current RFID technologies. The advantages of Nano RFID can be seen with its integration in human body with sensors, medical implantation and banking. Our implantation differs from other is that Nano RFID can enable complex features to be added in RFID to detect many components in human body. Many companies are working on RFID but Nanotech enabled RFID is still a thing that is not worked on. The future RFID is far beyond tag but will enable complex sensors which will be in use with WSN wireless sensor networks.