VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama" Belagavi – 590 010

PROJECT REPORT ON

"DESIGN AND FABRICATION OF AMMONIA GAS SENSOR USING ELECTROSPINNING METHOD FOR INDUSTRIAL AND MEDICAL APPLICATIONS"

Submitted in partial fulfillment of the requirements for the award of degree

BACHELOR OF ENGINEERING
IN
ELECTRONICS & COMMUNICATION ENGINEERING

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CERTIFICATE

*Certified that the project work entitled "***DESIGN AND FABRICATION OF AMMONIA GAS SENSOR USING ELECTROSPINNING METHOD FOR INDUSTRIAL AND MEDICAL APPLICATIONS***" is a bona fide work carried out by*

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in partial fulfillment for the award of BACHELOR OF ENGINEERING in **ELECTRONICS & COMMUNICATION ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2019–2020. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

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ABSTRACT

For the environment, there is a need to design and fabricate appropriate product and fabrication in VLSI is one of the most important process related to produce an appropriate sensor. Measuring the concentration of ammonia is very important for acute illness and long term conditions. In industries, due to use of vast amount of chemicals like ammonia. More concentration of ammonia might damage the environment and also can introduce the physical and mental illness due to the gases produced by harmful chemicals and may cause severe injury and burns. Contact with concentrated ammonia solutions such as industrial cleaners may cause corrosive injury, including skin burns, permanent eye damage or blindness. In such scenario, ammonia sensor is required for avoiding before it seriously affects health. Sudden high concentration is one of the problem, so there are several sensors designed for solving problem, such as electronic ammonia gas sensors, smart phone reminder applications and many more. However, it is not possible for all existing ammonia gas sensors to find the concentration at Room Temperature (RT) and for small concentration.

This work a sensor that will help not only in the laboratory and to the industries in the environment, but also a person who is suffering from Renal disease. Fabricated sensor will help user to find the high concentration of ammonia regions. People need not to worry about the present environment like place where they live or work as they can set an alarm on the concentration of ammonia. A sensor is usually placed in ventilation region, which blinks at particular time when the areas in a dangerous situation due to high concentration of ammonia the chemical gas so that people can evacuate the place. The alarm can be set for more than a certain concentration which can harm the environment.