A REPORT ON

INDUSTRIAL VISIT FOR ECE DEPARTMENT 3RD SEMESTER

AT

NATIONAL SMALL INDUSTRIES CORPORATION (NSIC), EKKADUTHANGAL.

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ORGANIZED AND MANAGED BY:

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INTRODUCTION:

Department of electronics and communication engineering from KCG college of technology arranged an one day industrial visit for third semester degree students to " National Small industries corporation(NSIC)", Ekkaduthaangal. For better technical knowledge enhancement of students. Visit is important, especially important in the field of Engineering as the practice of engineering has an inherent impact on our society. These programs can be a powerful tool to constitute a positive industrial climate and can range from basic manufacturing system programs for students. Overall, the aim of all these visit trains the students to adapting to the changing scenario of technology. After visit, students can identify their own efficiency and performance which is important for their career, improving work efficiency and confidence.

PURPOSE:

Industrial visits are an integral part of engineering and acknowledgement of technical up-gradation. The purpose of industrial visit for students is to provide technical knowledge with the technological development in the industry and to understand the gap between practical and theoretical knowledge that could be passed in the future.

Interfacing with the industry also provides chance to build networks and develop our communication skills. Moreover, the participating organizations also gain by getting refined students from respective institutes which could also help in improving their economy.

INDUSTRY PROFILE:

National Small Industries Corporation (NSIC), is an ISO 9001-2015 certified Government of India Enterprise under Ministry of Micro, Small and Medium Enterprises (MSME). NSIC has been working to promote, aid and foster the growth of micro, small and medium enterprises in the country. NSIC is a "Mini Ratna" which provides short term loans for marketing schemes.

WHAT WE LEARNT?:

On 25th June 2019 we reached NSIC at 11:00 A.M. There were various departments in the industry. Firstly we were welcomed by a small orientation regarding the industry profile. We had a small session on "ARDUINO AND ITS APPLICATIONS". We learnt about the uses of ,

- Microprocessors

- Sensors
- Actuators (relays, motors)
- Memory(ON-chip , OFF-chip)
- Communication path

Next we were taught about the process of Liquid Manufacturing and the use of graphical and ladder languages.

We had the opportunity to know a little about **Programmable Logic Controllers (PLC),** Delta-PLC, WPL-SOFT, Ladder language. Generally the communication tool used is RS 232 OR RS 485 protocols. The AC source is stepped down to 24V DC supply. These PLC'S were in existence since 1968. The basic elements of a PLC include input modules, a central processing unit (CPU), output modules and a programming device.

After an hour, we had a small session about the basics and applications of "Rasberry pi". This can act as a mini CPU. The operating systems available are "NOOBS" and "RASBIAN". The board consists of an audio jack, USB slots and camera facilities.

BROAD COM, ARM PROCESSOR,QUADCORE 1.2 GIGA HZ.

Next, we were taken to the mechanical workplace where we had the opportunity to view the working of a 'centre lathe' and the 'drilling machine'.

Some of the finished products of the industry is shown below.

we also had the chance to see various manufacturing machines.

HEAVY BORING MACHINE

ACUFIL MACHINES:

These machines originated back in the year 1984 and has become one of the leading manufacturers, suppliers of packing machines, Food processing machines, bakery machines and SPM machines.

Finally, we were taken to the "REVERSE ENGINEERING" LAB, where we learnt about the 3-D printers and scanners. The finished products were made out of poly lactic acid.

WHAT WE LEARNT?:

3D printing is the process of converting any digital file into a real 3D object. This can be done with the use of CAD design software or by scanning. 3D printing has great impact in many industries such as aerospace, science and engineering.

CONCLUSION:

From this visit, everyone got the information and practical knowledge about various manufacturing machines. Students got the knowledge about the applications and basics of 'ARDUINO' AND 'RASBERRY-PI'.

About 25 students of 3rd Semester Electronics and Communication Engineering of KCG college of technology & faculty named DR. Nirmala Devi benefited from this visit ,as we all got a chance to discuss with In-charge officer and other employees working at the industry. Students are eager for more such industrial visits for practical exposure to show the success of the visit.

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