K. K. Wagh Institute of Engineering Education & Research, Nashik

Department: Electronics & Telecommunication

Industrial Visit Report

A.Y: 2018-19

Name of the industry visited	ESDM Technology PVT.LTD
Address of industry visited	93/3, Satpur MIDC Road, Near Ceat Tyres,, Nashik, Maharashtra 422007
Date of industrial visit	29/03/2019(batch A and C) and 02/04/2019 (batch B and D)
Target participants	Students of TE (E&TC)
Number of participants	59 + 3 Staff members
Name of the course for which industrial visit is organized	Employability Skills &Mini project
Name of the visit coordinator	Prof. Shraddha.V.Shelke Prof. R.V.Chothe Prof.A.H.Dhangare
Name of the visit instructor	Mr.Saleel Raje
Outcome of the industrial visit	Students understand process and steps of wave soldering, automatic component cutting and component placing machine POS mapped : 1,2

About Visited Industry:

Esdm Technology Private Limited is a Private incorporated, Non-govt company. It is involved in Manufacture of electronic valves and tubes and other electronic components.

During industrial visit students observe detail and stepwise process of Wave soldering. Wave soldering is a large-scale soldering process by which electronic components are soldered to a printed circuit board (PCB) to form an electronic assembly. The name is derived from the use of waves of molten solder to attach metal components to the PCB. The process uses a tank to hold a quantity of molten solder; the components are inserted into or placed on the PCB and the loaded PCB is passed across a pumped wave or waterfall of solder. The solder wets the exposed metallic areas of the board (those not protected with solder mask, a protective coating that prevents the solder from bridging between connections), creating a reliable mechanical and electrical connection. The process is much faster and can create a higher quality product than manual soldering of components.

Wave soldering is used for both through-hole printed circuit assemblies, and surface mount. In the latter case, the components are glued by the placement equipment onto the printed circuit board surface before being run through the molten solder wave.

Students also observed automatic component cutting machine and automatic component placing machine. Component placement machine, picks the SMD components and mounts it in the respective positions in the PCB, which is already printed with solder paste. Placement heads of the machines are capable of handling any components like QFP, BGA,CSP,MELF etc and move in X, Y, Z axis directions and in Theta direction also can check the polarity of the components as well. SMD components are placed in reel forms. These are all high speed machines helps increasing the productivity and precision

Photos of Industrial visit:

Industrial visit coordinator

Prof. Shraddha.V.Shelke