

## PRINTING – PART VIII

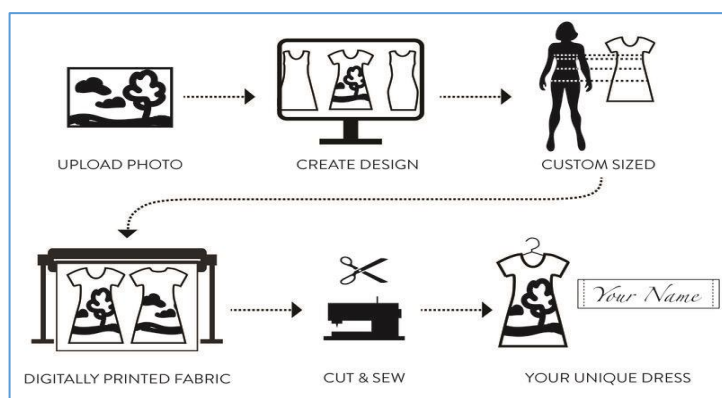
REF: TT/ JUNE 2021/ WK 5

### C) Digital Printing

Digital printing is the process of printing directly from the computer directly onto a variety of media substrates. In another words, when digital images are reproduced on physical surface, it is called digital printing. The physical surface can be in forms like paper, cloth , plastic , film, etc.

Digital textile printing is a new and innovative process that involves printing a design directly from the digital file onto the fabric by way of a large format digital printing machine. This technology is very fast growing segment among other types of textile printing technologies. It is a process of printing on textiles and garments using inkjet technology to print colors onto the fabric. In the Ink Jet technology, only the ink drops get in contact with the surface. It is generally known as a printing method without any impact.

The first step in digital textile printing is to pretreat the fabric, and then it is fed through the printer, which sprays the dye onto the textile with tiny droplets. The final step is fixing the print onto the fabric. In digital inkjet printing, print heads containing banks of fine nozzles, fire fine droplets of individual colored inks on to pre-treated fabrics. The print design is created digitally and the ink droplets are mixed together on the fabric surface to create final color. Digitally printed textiles save energy and eliminate many process steps compared to screen printing. In case of pigment based digital printing, it can be a completely dry print system; without the need for steaming or washing.



**Fig 1.1 Digital Printing**

Ref: slideshare.net



The print design is altered digitally and the set-up time to produce small batches, sampling is substantially decreased. All the costs that are generated due to screen engraving, strike-offs and wastage are also eliminated. The dyes are supplied in color cartridges by the dye maker and, ones connected in the printer, are ready for instant use. Inkjet printing has a low water consumption and low energy consumption process compared with conventional printing process.

The main advantages of digital textile printing compared to the conventional printing method are.

- Provides more creative form of printing.
- Gives design flexibility.
- Better option for smaller quantity.
- Used for customised pieces.
- Unlimited color combinations can be used. Digital printers are not limited to a maximum amount of colors as rotary printer.
- Unlimited repeat size as the repeat size is not limited to the diameter of the rotary screen.
- Fast production process, hence best method for fast fashion.
- Digital textile printing uses less space than the conventional rotary screen printing. Also it uses less ink.
- This printing technology involves very low power and water consumption as compared to conventional printing.
- Environment friendly process. It creates less pollution as there is no discharge of dyes and chemicals.
- Cost effective as compared to conventional printing technologies

References:

1. <https://www.hollyflower.com/>
2. <https://www.kornit.com/>
3. <https://indiantextilejournal.com/>
4. [https:// https://edgecolours.com/](https://edgecolours.com/)

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SUMPCONTION

Last week`s Answers: 1) CHEMISTRY 2) ACTIVATED 3) ACRYLATE 4) DEVELOPED

**Wishing you a great week ahead!**

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