ADVANCE WITH TECHNOLOGY

As technology takes over most of the menial jobs, there is a need for the engineering graduates to be employable and trained in contemporary technologies like data analytics, big data, data science, robotics, artificial intelligence and virtual reality, says **PRAKASH MENON**

Automation is reducing the need for people in many jobs. We are facing a future of stagnant income and worsening inequality," opines Erik Brynjolfsson alarming about how technological advances are likely to replace human element in many jobs. The IT space is increasingly adopting technologies like artificial intelligence, be it IBM's Watson or Wipro's Holmes. And if experts are to be believed, this digital transformation wave will bring a major shift in talent demand in the next five to seven years. IT companies will be seeking upskilled engineers in niche areas. And simultaneously there will be a decrease in the demand for engineers for low-level jobs like coding, app testing, app maintenance etc. Companies will be under paramount pressure to employ engineers who can deal with smart systems. For low-wage and manual operations they have machines!

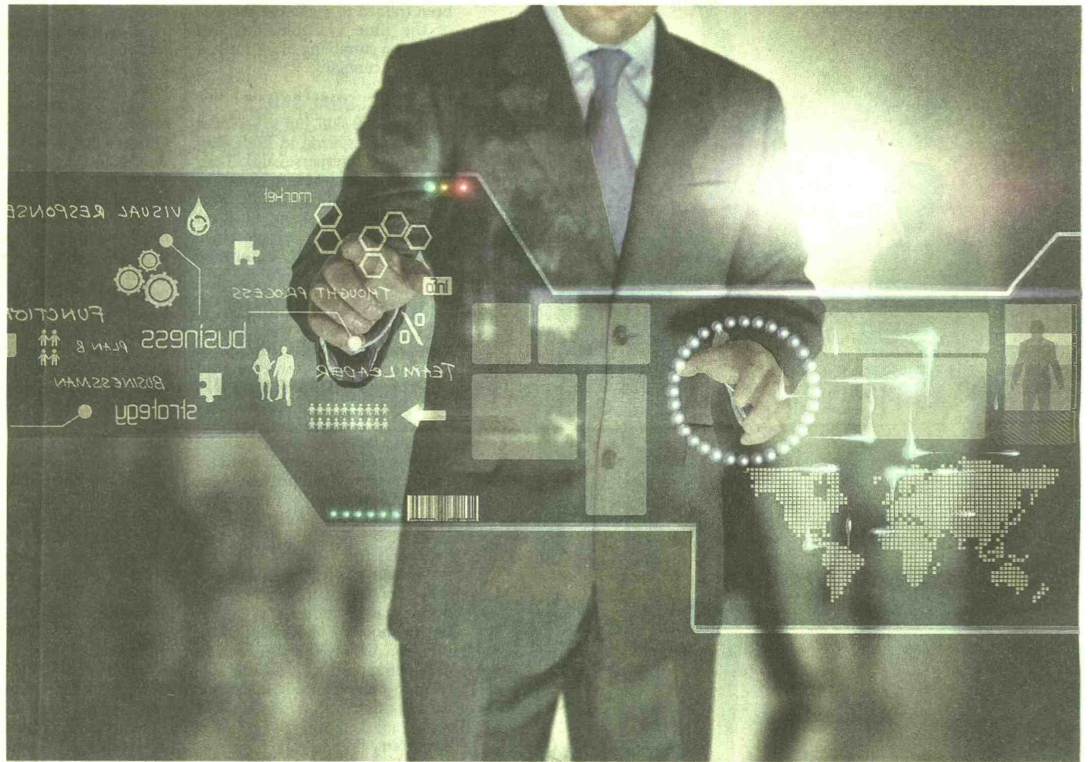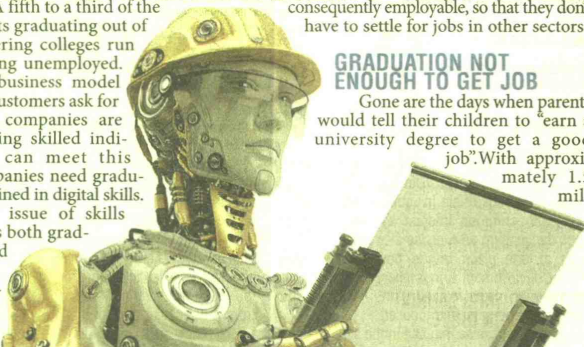## ROBOTS —REPLACING ENGINEERS SINCE 2015

The IT sector witnessed a turnaround in recruitments in the fourth quarter of Financial Year (FY) 14. There was an unexpected jump in the employment rate. However, this didn't last long. After the third quarter of FY15, it started receding gently. To date, this graph is receding. In the year 2015, the top five IT companies hired only 77,625 employees. That is 24 per cent lesser than the number of recruitments in the same period, last year.

The IT sector contributes 7.5 per cent to the GDP of the country and is lauded by the Prime Minister Narendra Modi for creating employment for the vast talent pool of educated unemployed (the sector is likely to create 2.5 lakh new jobs this year). However, now it is also following in the footsteps of major private sector players worldwide and employing automation to improve profitability and reduce redundancy. This year in June, Wipro announced that it will free 3,000 software engineers from their 'mundane' software maintenance jobs, and save the company about $46.5 million. Therefore, at a time when the Government is dreaming to create a Digital India so as to generate fifty million additional jobs, Indian IT companies are planning their own future, without their engineering workforce.

ENGINEERING TALENT IS GOING DIGITAL

It's a fact that engineering firms are struggling to recruit fresh graduates right out of college. A fifth to a third of the million students graduating out of India's engineering colleges run the risk of being unemployed. Reason? The business model has changed. Customers ask for more and IT companies are looking at hiring skilled individuals who can meet this demand. Companies need graduates who are trained in digital skills. A threatening issue of skills mismatch faces both graduates and recruiters.

"IT infrastructure of the future will be managed not by people but by smart systems. Engineering "chores" will be automated and technologists will focus on creativity and innovation," says Chetan Dube, founder and CEO of AI systems maker IPSoft.

With the world of work evolving to digital transformation trends like automation, big data and analytics, and artificial intelligence, companies are changing their recruitment strategy. Not many companies are willing to train fresh graduates in the digital technologies they work with, citing budgetary constraints. And this story is largely being played out across the engineering sector. The need of the hour is for the engineering graduates to be digitally trained and consequently employable, so that they don't have to settle for jobs in other sectors.

GRADUATION NOT ENOUGH TO GET JOB

Gone are the days when parents would tell their children to "earn a university degree to get a good job".With approximately 1.5 mil-

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lion engineering students passing out every year, competition for jobs is at an all-time high. What's more? We are also facing credential inflation. At the same time, as college students increase the number of enrolled students, the average wages of fresh university graduates continue to decrease.

As technology takes over most of the menial jobs, there is a need for the engineering graduates to be trained in contemporary technologies like data analytics, artificial intelligence, big data, etc. However, only a few graduates are investing in training themselves in these new technologies and largely depend on their employers to do so. Companies, on the other hand, do not wish to invest time and money to make fresh recruiters "employable".

This presents an opportunity to the IT training solutions to bridge the prevailing gap and train graduates in contemporary digital skills. Under the DigiNxt portfolio, NIIT will gradually shift the whole general IT education and training modules towards futuristic technologies like Dev Ops, big data, data sciences, robotics, IoT, virtual reality, artificial intelligence and machine learning etc. The programme will help groom engineering students aspiring for software engineering careers to achieve their career aspirations, because just an engineering degree is not good enough anymore.

(The writer is president, Global Skills and Careers Group, NIIT Ltd.)