

Trends and issues for engineering education in the UK

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Today, one of the main challenges for the UK engineering education system is its ability to meet the increasing demand for graduates and skilled engineers by industry. This chronic shortage of engineers remains a persistent problem for industry as it has been for several decades. To satisfy the industry demand, universities are being encouraged to significantly increase the number of engineering graduates they produce.

As engineering is a vital part of the UK economy, this huge gap can be filled only progressively and with effective help from government as well as strong cooperation between industry and academia. The aim of this paper is to identify the challenges and opportunities for the UK engineering education system and to provide insight into how these could be managed in the future. Five sources of change are identified in the framework of the Innov'Ing 2020 research project: global competition in the international engineering student market, international mobility, progress with national engineering education policies, modification of the socio-economic environment and industry development in the UK. The availability of degreed and skilled engineers is also a critical issue for the development of innovation and industry performance. In this context, improving the dynamic competitiveness of engineering education significantly contributes to the global competitiveness and national development of the UK [1]. Despite the high demand for graduate engineers, engineering companies will not recruit if they feel the candidates are insufficiently qualified or matched to their organization. For this reason, the engineering education system needs to put more emphasis on the transformation to prepare students for their future professional practice [2].

The government has recently launched several new programmes (e.g. 'Your Life' and higher apprenticeships) but supplementary action is needed to encourage companies to engage fully with the agenda to increase and develop new engineering talent. A key element to making this happen is to ensure a better fit between the needs of industry and the offer of the universities. Doing this will strengthen the partnership between industrial companies and universities thus creating a solid foundation for the future.

References

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