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## Towards the Fabrication of All-Fibre Laser Systems

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**Abstract content**   
 (Max 300 words)   
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Fibre lasers are receiving increasing interest due to its many advantages over other laser technologies. These laser systems are both compact and robust, provide excellent beam quality and offer high efficiency. In addition to the design of the optical fibre itself, key factors in the fabrication of high power fibre lasers are low-loss fusion splicing and fused fibre components. Optical losses that are considered tolerable in typical telecom applications can lead to catastrophic failures from localised heating. An overview of the various building blocks of fibre lasers (e.g. mode-field adaptors, fibre tapers, fused couplers, pump combiners and end-caps) will be presented and the various challenges to the successful fabrication of low-loss optical components will be discussed.

**Apply to be considered for a student award (Yes / No)?**

No

**Level for award (Hons, MSc, PhD)?**

No

**Would you like to submit a short paper for the Conference Proceedings (Yes / No)?**

No

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