Research Position: Industry linked PhD. Candidate will participate in a collaborative research project between Trinity College Dublin and Bell Labs being registered for a PhD in Trinity College Dublin.

Duration: 4 Years

Commencement Date: 1 January 2018

Deadline: Expressions of interest complete with CV to be made via email to both Bell Labs and TCD by 31 May 2017. Contact details below.

Stipend: €16k per annum plus €5,750 towards registration fees.

Nokia Bell Labs Ireland (BLI) and Trinity College Dublin (TCD) are seeking a highly motivated candidate to drive a project in the field of acoustic metamaterials as a doctoral researcher. The researcher will be funded under the Irish Research Council Employee Based Programme for four years under the co-supervision of TCD and BLI.

Metamaterials are engineered materials which exhibit properties not observed in nature such as acoustic lensing, cloaking, and sub-wavelength absorption of acoustic noise. The candidate will develop a novel acoustic metamaterial which can provide absorption per unit thickness beyond the current state-of-the-art, under consideration of both grazing and normally-incident flow fields. Acoustic noise is an increasing concern in the telecommunications industry as device functionalities and hence heat loads increase, driving the need for higher airflow rates for cooling and hence faster, noisier fans. The researcher will develop theory predicting the dynamic response of the metamaterial in an acoustic pressure field, numerically model the material with simulations, and validate these findings experimentally.

Nokia is a global organisation which provides telecommunications hardware and services for reliable, high-speed connectivity. Nokia Bell Labs is a leading research organisation whose previous work has resulted in eight Nobel Prizes in fields as diverse as radio astronomy, the development of the transistor, CCD imaging semiconductors and fluorescence microscopy. The Efficient Energy Transfer Group at Nokia Bell Labs Ireland features research in the disciplines such as viscoelastic turbulence in microchannels, multiphase heat transfer, energy storage and energy harvesting.

Interested candidates should respond in advance of 31 May 2017. The candidate will be required to apply for IRC EPS funding by the deadline of 8 June, with assistance from Bell Labs and Trinity College.

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