

## **A position of Speech Synthesis Researcher** **Toshiba Research Europe Ltd, Cambridge Research Lab (CRL)**

Toshiba Research Europe Ltd, Cambridge Research Lab (CRL) is seeking a research engineer to join our Text-To-Speech (TTS) research team.

CRL has been working on HMM-TTS for several years to improve its prosody generation based on parametric models [1][2], to improve excitation models [3][4] for better speech quality and to increase speaker and language adaptability [5][6]. The research team is very active in leading the research area of HMM-TTS.

The successful candidate will lead research work on speaker and language adaptation, expressive speech synthesis and unsupervised training of expressive speech from audio books in a context of HMM-TTS. The candidate will be expected to create innovative ideas on these research topics, to implement them into a TTS system and to do evaluation.

The CRL Speech Technology Group (STG), consisting of TTS, ASR and language development teams, is a multinational team of dynamic individuals. The team carries out mid-to-long term research for Toshiba's speech recognition and synthesis systems and contributes to the development of systems for deployment in North America and Europe. STG works in collaboration with speech R&D groups in Toshiba RDC, Japan, and Toshiba China. Based in the beautiful city of Cambridge, England, the team has close links with the University of Cambridge. Dr Mark Gales is a part-time Technical Advisor of the group.

Required skills:

- PhD in related subject or equivalent industry expertise
- Good knowledge of HMMs and machine learning
- Good knowledge of HMM-TTS
- Good software skills in C, Python and Linux
- Good English and communication skills

Any of the following are welcomed:

- Experience of speaker adaptation
- Industrial coding experience
- Experience of working in a team
- Knowledge of other major European languages

Applicants should send a CV and a covering letter, stating where you saw this advert, to [stg-jobs@crl.toshiba.co.uk](mailto:stg-jobs@crl.toshiba.co.uk). Questions or requests for further details can be sent to Dr Masami Akamine who is staying in Cambridge at [masa.akamine@toshiba.co.jp](mailto:masa.akamine@toshiba.co.jp).

<http://www.toshiba-europe.com/research/crl/index.html>

Closing date for applications: 21 October 2011 (or until post filled)

- [1] J. Latorre and M. Akamine, "Multilevel parametric-base F0 model for speech synthesis." in *Proc. Interspeech*, pp. 2274-2277, September 2008.
- [2] J. Latorre, M. J. F. Gales and H. Zen, "Training a parametric-based logF0 model with the minimum generation error criterion." in *Proc. Interspeech*, pp. 2174-2177, September 2010.
- [3] R. Maia, H. Zen, M. J. F. Gales. "Statistical Parametric Speech Synthesis with Joint Estimation of Acoustic and Excitation Model Parameters," in *Proc. SSW7*, pp. 88 – 93, 2010.
- [4] R. Maia, H. Zen, K. Knill, M. J. F. Gales, S. Buchholz. "Multipulse Sequences for Residual Signal Modeling," in *Proc. Interspeech*, pp. 1833 – 1836, 2011.
- [5] H. Zen. "Speaker and Language Adaptive Training for HMM-Based Polyglot Speech Synthesis," in *Proc. Interspeech*, pp. 410 – 413, 2010.
- [6] N. Pilkington, H. Zen, M J. F. Gales. "Gaussian Process Experts for Voice Conversion," in *Proc. Interspeech*, pp. 2761 – 2764, 2011.