CCPi Summary (Martin Turner acting for the Chair Prof Philip Withers)
Jul – Nov 2012

The CCP in Tomographic Imaging has progressed strongly since the last 6-month report and has seen a consolidation in networking, code creation and submissions as well as appointments in staffing. The CCPi started in autumn 2011 with Prof Phil Withers as the Chair; prioritising the two areas of reconstruction and quantitative analysis. It aims to provide the UK tomography community with a toolbox of algorithms that increases the quality and level of information that can be extracted by computer tomography.

This CCP network had its last 6-month review meeting on 26 November 2012 (minutes on the website; http://www.ccpi.ac.uk/minutes.shtml). Considerable time was spent steering the programs of work about to start following two recent appointments (see below). Time was also spent analysing the extent of progress towards the mid-term success factors that are due in March 2013 (see section below).

Highlights of some of the outcomes over the last period are:

- The distribution membership list (using JISC listserv) on the website is growing with 250+ now receiving news and updates; a new review is to be undertaken to analyse the interest areas of members. Encouragement to join the membership list, which is open to all, via ccpi@stfc.ac.uk is ongoing.

- Non-core funded posts have been appointed. Note, the core component was equivalent to 1.5 FTE on the two technical scopes; "reconstruction" (Barry Searle) and "3D analysis" (David Worth) with these posts having extra responsibility for general administration as well as integration with infrastructure CCPForge etc. The non-core posts appointed include:
  1. Four month Fellowship in Compressed Sensing appointed to Thomas Blumensath (University of Southampton).
  2. An EPSRC three year funded Fellowship in Iterative Reconstruction appointed to Daniil Kazantsev (RC@H, Research Complex at Harwell)

- The outcomes from the initial six month fellowship to develop industrial case studies using iterative reconstruction methods by Nicola Wadeson (University of Manchester) are being uploaded to the CCPForge.

- Short appointments have been agreed for the next period for creation of outreach, training and promotional material under the core funding, through an open call:
  1. Professional video recording and interviewing of research use at the Diamond Light Source, for December 2012. This combines with collection of a complete DOI tagged data set from live research to act as test cases for the community.
  2. Liaison with Phil Manning (STFC Research Fellow in Outreach) have occurred to host an activity/video to promote deliverables.
  3. Short video production for dissemination of specific results; has been approved and to be coordinated by the University of Manchester.
  4. Video illustrations for the website to act as educational material are to be costed and then coordinated by Manuchehr Soleimani (University of Bath).

- Workshops (tutorial type) are continuing; two have occurred in November, CCPi workshop on segmentation methods with 10 participants held at RCaH, in association with Richard

Green; and a co-hosted event with MIRREN giving an introductory course on Reconstruction Algorithms held at Manchester in association with Bill Lionheart.
Two workshops, so far, are planned for 2013:
1. Joint MIRAN/CCPi quantification workshop for Feb 2013
2. Joint HIP/CCPi to run image-based modelling events at DL and RAL incorporating training plus show and tell 2013q2

Appendix A. Mid-Term targets: the following is a list of targets that are being aimed for by end of March 2013.

Increase user base	50 'active' members of network
International links	3 international fellow visits
Links with industry	5 company members 5 industrialist attend training courses/workshops
Feedback from workshops/training	40 different people have attends workshop/training
Outreach	4 outreach videos for schools available on YouTube
New software functionality	5 3D analysis routines added 2 reconstruction tools added
New scientific functionality added to code	Prototype iterative algorithms available for network testing Centre of rotation/blurring corrections Missing wedge algorithm
Papers	3
Complementary follow-on funding	1 parallel funded project (industry or Research Council)

30/11/12