Applications are invited for one Postdoctoral Position in IMAGE-GUIDED RADIATION THERAPY at the Center of Excellence in Image-guided Radiation Therapy, Department of Radiation Oncology, the University of Iowa. The center is a state-of-the-art radiation oncology facility equipped with both 4D image- and optic-guided imaging and radiation delivery systems.

The successful candidate will contribute substantially to the development of new radiotherapy modality to integrate image-guided IMRT (Intensity-Modulated Radiation Therapy) and HDR (high dose rate) brachytherapy, with an emphasis on increasing the precision of target coverage and normal tissue sparing by accounting for the uncertainties of anatomy changes between two different radiotherapy modalities. To account for the anatomy changes, currently developed non-rigid registration and segmentation will be implemented. Their effectiveness and accuracy will be improved through this project. This Postdoctoral fellowship provides an opportunity to engage with this emerging multi-disciplinary research area involving imaging, medical physics, and computer algorithms, and to work with at least two faculty collaborators from Radiation Oncology and Electrical & Computer Engineering Departments.

The position is for one year in the first instance and has the potential to be extended for up to two years for suitably qualified candidates if skills, interest and performance allow. This position is immediately available and will start at a mutually agreed upon date. All qualified candidates are encouraged to apply.

The ideal candidate must be highly motivated and has a strong background in medical imaging, computational science and medical physics. Proven ability to work independently and experience in *non-rigid image registration* are considered to be important assets for this position. The candidate is also expected to be willing to work in a cross-disciplinary environment. Strong programming skills in Matlab and C/C++ are required. Good communication as well as writing skills is desirable. Applicants should hold (or will obtain within six months of application) a Ph.D. in Medical Physics, Computer Engineering, or a related field.

The application must include the following:
  - Cover letter highlighting his/her suitability for this position;
  - Curriculum vitae;
  - Up to three selected preprints/reprints (papers) most relevant to this position;
  - Three letters of reference.

The application should be sent to Dr. Yusung Kim or Dr. Xiaodong Wu at the address below (email applications only). The position is available until filled. Please feel free to contact us if you have any questions.

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