



Project Title: 3D reconstruction of cerebral arteriovenous malformation for intraoperative neuronavigation		Code: NEP1
Host School / Institute: Nepean Clinical School	Address: Nepean Medical School	
Certificates & Clearances required: No		
Primary Supervisor: A/Prof Behzad Eftekhari		
Phone: 0422 290 780	Email: behzad.eftekhari@sydney.edu.au	
Co-Supervisor/team: N/A		
Project Type: Design; Laboratory based		
Project Category: Imaging; Bioinformatics		
Skills / Attributes of a successful student: familiarity with graphics computing		
Project Keywords: 3D models; CT; Brain		
Project Description: Neuronavigation for localization of normal and abnormal structures has been part of routine neurosurgical practice for a while, however has not been efficient for surgery on vascular malformations of the brain. New imaging modalities and navigation systems present opportunities for further improvement in this field. In this project the student tries to reconstruct a 3D model of cerebral vascular malformation based on the patient's CT, and tries to optimize the work flow for that. That can be an introduction to further assessment of the technique in actual neurosurgical procedures. This research requires basic knowledge of graphic computing.		