The scholarship applications close on 20 January 2015. For further information or to apply contact Prof. Kiet Tieu,

UNIVERSITY OF WOLLONGONG
School of Mathematics & Applied Statistics
2 x HDR SCHOLARSHIPS
3 years – AUD $25,406pa (tax free)

We are looking for two PhD candidates to engage in research related to a project on curvature flow funded by the Australian Research Council. We are interested in the changing shape curves, surfaces and hypersurfaces flowing by speeds depending on their curvature and possibly derivatives of curvature. Specific examples include the mean curvature flow, the surface diffusion flow and the Willmore flow, with applications in metallurgy and mathematical biology. Particular questions include short-time and long-time behaviour of solutions to these flows, stability of solutions and classifying limiting shapes and/or singularities. Fundamental techniques used in the analysis include integral estimates, interpolation and Sobolev inequalities.

As a prospective PhD student you should have or expect to complete in 2015 an Honours and/or Masters degree or equivalent in mathematics with excellent results including significant existing experience in mathematical analysis, partial differential equations and/or differential geometry. You should have an interest in geometric flow and a commitment to producing high quality research in the area. You should already have very strong written and oral communication skills in English, although these skills will be further developed through the course of your PhD studies. For overseas applicants, an IELTS score of 6.5 is required. As a PhD student in geometric analysis at the University of Wollongong you will be part of a vibrant research community that includes active research in curvature flow, optimal transport and noncommutative geometry. As well as conducting high quality research, during the course of your degree you might also have the optional opportunity to gain a small amount of teaching experience through undergraduate tutorials.

Applicants should submit a CV clearly outlining education, with certified academic transcripts, research experience, two referees and interests and any publications.

How to apply:
Applications close on 30 April 2015 and should be submitted to: eis-scholarships@uow.edu.au
For further information please contact:
A/Prof James McCoy - email: jamesm@uow.edu.au or
Dr Glen Wheeler - email: glenw@uow.edu.au