

Dr Rebecca Gravina B.E Civil (Hons), PhD, MIEAust



Education, Experience & Achievements

Dr Rebecca Gravina is a Senior Lecturer in Civil Engineering in the School of Civil, Environmental and Chemical Engineering at RMIT University (Australia). Rebecca holds a PhD in Structural Engineering from the University of Adelaide (Australia) and Bachelor Degree in Civil Engineering with Honours from Swinburne University (Australia). Prior to her commencement at RMIT University in 2003 she was employed as a Structural Engineer with ARUP consulting firm in Melbourne.

Rebecca has developed and delivered courses in statics, structural analysis and reinforced and prestressed concrete design. Her teaching achievements and innovations have been to adopt project based learning in courses with the goal of developing graduate capabilities. In 2005 she was the co-recipient of the Engineers Australia National Committee on Applied Mechanics triennial award for outstanding innovation in teaching of applied mechanics. Further in 2005 Rebecca was awarded a Teaching and Learning grant for the project "Strategies to improve conceptual understanding of structural behaviour" and also received the Science Engineering and Technology Pro-Vice Chancellor's quality award for 'Commitment to Student Learning and Experience'.

Her research interests also include non-linear analysis and design of Reinforced Concrete (RC) structures, ductility and bond mechanics of steel RC and Fibre Reinforced Polymer (FRP) RC structural elements, and rehabilitation of concrete structures using FRP. In 2003 she was the award recipient of the Inaugural National Engineering Bursary from the Concrete Institute of Australia for her PhD studies. In 2005 Rebecca was awarded an Australian Research Council (ARC) Linkage grant as the principal chief investigation for the project titled "Prediction of Time Dependant Deformation in Suspended Concrete Slabs in Tall Buildings.

Rebecca has published numerous refereed journal articles and conference papers, presented her research findings at various international and national conferences and has supervised masters and PhD research students.

Within Engineers Australia Rebecca is the Chair of the National Committee for Women in Engineering, Editor in Chief of the Australian Journal of Civil Engineering and member of the Civil College Board and Victorian Division Women in Engineering committee. Rebecca is also active on other industry committees such as the Concrete Institute of Australia Victorian Branch committee and the RMIT University Science Engineering and Technology (SET) Portfolio Board.

What led you to choose Engineering as a career?

I always enjoyed maths, science and graphics in high school. I originally wanted to do Architecture but then Civil/Structural Engineering was presented as an option that would allow me to balance my technical and creative interests. Further Civil Engineering is so broad that it can offer diverse career opportunities.

What is it about Engineering that inspires you?

Being able to combine technical and creative skills to achieve an outcome or solution to a problem that has benefits to the individual, wider community, society and the way we live in the world.

What has been the high point in your career to date?

The satisfaction and recognition received for my teaching and research achievements.

What has been your biggest challenge so far and how have you solved it?

Deciding to leave my consulting job as a structural engineer on high profile buildings projects to pursue a career in academia. The challenge as an academic is to remain industry relevant and balance teaching and research interests. I have managed to maintain my industry relevance by researching into the behaviour and rehabilitation of concrete structures and use of sustainable building materials, teaching in this subject area and by being active on industry committees. I have also developed project based material for the courses I teach that is engaging to students by providing realistic project designs and incorporating my research findings into the lecture room.

How have you managed your work and family commitments?

To date it has been relatively easy to balance work and family commitments. However, when I have children I will consider mechanisms to balance work and family. Fortunately my chosen career path in academia does provide for a flexible work environment.

Do you have any advice for women who are considering engineering as a career, or for those who are already Engineers?

Engineering is a fantastically rewarding career, there are many and varied career paths to follow. Enthusiastically follow your passion and opportunities will arise.