



Tuesday, January 28, 2020
3:00 – 4:00 p.m.

Seaton Hall, Room 1037



Will Ag Tech Save the World?

Professor Craig Baillie

Visiting Fulbright Senior Scholar

Professor and Director of the Centre for Agricultural Engineering at the University of Southern Queensland Australia

At a global scale the demand for food and agricultural output needs to increase by 50% in the next 30 years, while balancing environmental and sustainability objectives. New and emerging technologies in agriculture (i.e. Ag Tech) have the potential to advance the management of agricultural production to meet these challenges. An emerging array of Agricultural Technologies (Ag Tech) including sensors, machine learning analytics, automation and robotics inform a potential step change in agriculture. The advancement of these technologies has been referred to as the forth revolution in agriculture (i.e. Agriculture 4.0). This rapid growth in Ag Tech has been informed by the exponential development and use of enabling mass consumer electronics and the relatively low digitisation of agriculture compared to other industries.

Despite the significant potential impact of digital technologies (estimated at \$20.3 Billion in Australia alone), a large percentage of what is currently available is either not used or used to its full potential given there is a failure to capture the actual needs of the farmer. With significant investment in Ag Tech globally totalling more than \$25 Billion since 2012, this seminar will reflect on key challenges and technology developments informing next generation farming.

Professor Craig Baillie is the Director of the Centre for Agricultural Engineering (CAE) and the Deputy Executive Director of the Institute for Advanced Engineering and Space Sciences (IAESS) at the University of Southern Queensland. Craig is an Agricultural Engineer with 24 years' experience in Agricultural Research, Development and Extension (R, D & E). Primary research interests include farming systems innovation and technology solutions to improve farm productivity and profitability. Key focus areas include precision agriculture, energy conservation, bioresources, irrigation modernization and automation. Craig is also involved in major initiatives and collaborative research with Deere and Company in the USA on new and innovative farming technologies.

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