

# Dr. Punarjay (Jay) Chakravarty

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Website: <http://www.jaychakravarty.com>. Residency: Australian citizen.

## WORK EXPERIENCE

**Post-doc at KU Leuven, Belgium** **Oct 2013 - present**

**SenSen Networks ([www.sensennetworks.com](http://www.sensennetworks.com)), Australia** **2007-2013**

Major projects:

- **SenForce**
  - Led design and development of a mobile parking enforcement system, which detects and reads car license plates and parking overstays from an enforcement vehicle.
  - Developed algorithms for 3D localization of infringing vehicles (now being patented by the company).
  - Successfully marketed and delivered 6 vehicles fitted with the system to 4 councils in Brisbane, Perth and Sydney in Australia, with more orders on the way.
  - More details in this video: [http://www.youtube.com/watch?v=j9Y\\_933ZP4g](http://www.youtube.com/watch?v=j9Y_933ZP4g)
- **SenPort**
  - Helped develop and set up software for the largest video surveillance system in the world: a system of 80 servers doing video analytics (face recognition, left luggage detection, loitering detection, etc.) for 400 cameras at the Abu Dhabi International Airport.

**National ICT Australia (NICTA, [www.nicta.com.au](http://www.nicta.com.au))/SenSen Joint Venture** **2010-2012**

- Developed algorithms for detecting and tracking cells in microscopic imagery.
- Worked on gesture recognition using accelerometers and gyroscopes for Parkinson's patients.

**Centre for Artificial Intelligence and Robotics (CAIR), India** **2005**

- Developed a system for the localization of a motorized wheelchair in the facility using only a forward-looking camera.

## EDUCATION

**Monash University, PhD in Robotics** **2005-2010**

- Thesis: Surveillance and Intervention: Collaboration Between a Robot and Fixed Cameras
- 9 peer reviewed publications in international conferences. Full list of publications available from [www.jaychakravarty.com](http://www.jaychakravarty.com)

**University of Melbourne, Bachelor of Engineering with Honours in Electrical Engineering** **2000-2004**

## CORE SKILLS

### Algorithms

- Computer Vision, Robotics, Multiple Target Tracking, Machine Learning

### Programming/Operating Systems/APIs

- Matlab, C/C++, OpenCV Library for Computer Vision, Linux, OS X and Windows environments