

Post Visit Report for DVF Fellow

November 1st, 2017

Professor Felipe Meneguzzi was a SICSA Distinguished Visiting Fellow from August 1st to October 31st 2017. The two main goals of the visit were to disseminate Prof. Meneguzzi's recent research on goal recognition using automated planning heuristics and engage with researchers on related subjects at the University of Aberdeen, University of Saint Andrews and University of Edinburgh. Besides the main goals, Felipe has helped Aberdeen develop lectures on automated planning and machine learning.

At the University of Aberdeen (throughout the visit), Prof. Meneguzzi engaged with Prof. Wamberto Vasconcelos on the topic of multiagent planning, and with Dr. Nir Oren on the topic of plan monitoring with limited sensing capability.

At the University of Edinburgh (18th of September), Prof Meneguzzi taught about Plan Recognition in the real world, and engaged with students attending the lecture. Prof. Meneguzzi discussed research directions on Multiagent Systems and on the application of ethics to AI reasoning with Dr. Michael Rovatsos.

At the University of St. Andrews (19th of September), Prof Meneguzzi lectured about Plan Recognition in the real world, and engaged with a group of AI students lectured by Dr. Alice Toniolo. Prof. Meneguzzi engaged with researchers on the topic of activity recognition (Dr. Juan Ye), computer vision for activity recognition (Dr. Kasim Terzic), AI research (Dr. Juliana Bowles) and argumentation-based reasoning (Dr. Alice Toniolo). He was also shown a demo of a radar based sensing interface and applications of machine learning to it.

The slides of both lectures are available online at Dr. Meneguzzi's personal website.

Throughout Prof Meneguzzi's stay at Aberdeen, he gave four lectures on automated planning for undergraduate and graduate students of Computer Science as part of two separate AI and Robotics modules. He also assisted Dr Oren in the preparation of teaching material and practical assignments on automated planning and machine learning.

Finally on October 17th at the University of Aberdeen, Prof. Meneguzzi presented a master class on automated planning and goal recognition in the real world, with attendees coming from across Scotland. The key topics of the lecture were:

- Automated planning and heuristic-based planning
- Plan recognition using plan libraries
- Goal recognition using landmark Heuristics
- Online goal recognition
- Goal recognition in incomplete domains
- Applications of plan recognition

The slides of the lecture and all supporting material is available online at the <https://github.com/meneguzzi/sicsa-master-class-2017> Github repository. This repository includes links to all the software implementing the techniques described in the lecture, as well as video of the lecture.