



### **ESMO EPS press release – 2010-11**

Eight engineering students from the University of Warwick are working on an exciting space project with the goal of sending a satellite to the moon. The European Student Moon Orbiter (ESMO) is due for launch in 2014 and will be the next lunar space mission for the European Space Agency (ESA). The students at Warwick are from a mix of engineering disciplines and have been working as a team to produce the Electrical Power System (EPS).

Warwick joined the ESMO project in 2006, and since then the team has changed each year, with the current team being the fifth to have worked on this constantly evolving project. The project consists of 23 other teams across Europe all working on different subsystems, such as the chemical propulsion, harness, thermal, etc. The team at Warwick are working on the Electrical Power System which consists of two solar panels, a battery and a central Power Conditioning and Distribution Unit (PCDU).

Since the start of the project, the power system has evolved substantially, with key design decisions being made and parts acquired from the many sponsors. The power from the solar arrays will be regulated with a Maximum Power Point Tracking system.

On a day to day basis the team uses software for thermal and vibrational modelling, constructs and tests prototypes, and also fulfils the project management requirements of a

space project. They regularly attend teleconferences with the system prime contractor – Surrey Satellite Technology Ltd.

Sponsorship is a big part of the team’s involvement in ESMO. Three team members are dedicated to acquiring sponsors and regularly communicating with existing sponsors, updating them on the status of the project and negotiating sponsorship arrangements. Students have also been on site visits - for example, this year they have visited Prodrive to discuss their solar panel needs, and ABSL, to talk about battery requirements. There are 17 sponsoring companies in total, who are all invited to the Sponsors Day in April. At this event, supported by Harwin, the Warwick team will give a presentation on the EPS system and the progress that has been made this year. All in all, the team participates in every aspect of the project, gaining a real insight into the space industry and how it operates.

For more information, please visit [www.esmo.co.uk](http://www.esmo.co.uk).

