

# Application for an Exchange visit at Macquarie University – Cover Letter

Vojtech Brtnik  
vojtech@brtnik.eu

**Home University:**  
Faculty of Mathematics and Physics  
Charles University in Prague  
Czech Republic

**Contact Address:**  
Brenkova 2964/19  
70030, Ostrava  
Czech Republic

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Dear Sir/Madam,

This is to confirm my deep interest in an exchange stay at Macquarie University in the first semester of the academic year 2010/2011. I believe that such a visit perfectly matches my life goal, both professional and personal.

I love mathematics, computers and their role in the current world. However, I have become aware that computers can be very dangerous tools for criminals, causing considerable harm in a free society. In my studies I have thus focused on the cyber-security. This nowadays very hot topic incorporates surprisingly many elements – theoretical mathematical foundations and cryptology, applications in computer spheres and networks, and very important aspects in civil security, diplomacy, and all different social levels. I am convinced that I could learn more about this at Macquarie University.

My master studies of *Mathematical Methods in Information Security* are almost over. So far I have achieved an average grade of 1.07. Concurrently I am also pursuing second major, in *Computer Science* because *Information Security and Cryptography* is an interesting twist of knowledge in theoretical mathematics and its applications in computers, information theory, programming languages and network infrastructures.

An exchange stay at Macquarie University will help me to further understand the branch of security and will also broaden my horizon towards the social aspect that is so uniquely covered only at Macquarie University. The very tight enlacement and broad coverage of various approaches to security at Macquarie is something that no other university in the world has achieved and is the reason I desire to study there. Nowadays, in the time of international terrorism and other new aspects threatening the society is this kind of knowledge extremely valued.

To that end, I hope to cooperate with the following institutions at the Macquarie University

- Centre for Advanced Computing - Algorithms and Cryptography
- Cybercrime Research Lab
- Department of Mathematics
- Centre for Policing, Intelligence and Counter Terrorism

Moreover, as a main objective, I plan to complete my master thesis at Macquarie University hoping to cooperate with renowned capacities in the field of my master thesis topic, especially in the centre for Algorithms and Cryptography.

To mention my recent professional success, my bachelor thesis was published in Czech cryptographic magazine, won a first price in student cryptographic competition *Keymaker*, was consequently introduced at a conference, and an English article for an international cryptographic magazine is currently in preparation.

Eventually, I intend to continue my studies for a PhD. I am convinced that Macquarie University will provide the educational opportunities and exact guidance for my future plans. This stay would help me to better understand the situation in the field, to start my PhD career towards the right direction and to be able to greatly contribute to the research at the Charles University in security and cryptography.

On the second page, I attach a list of courses that I would like to attend during my stay.

Yours sincerely,

Vojtech Brtnik

<b>Name</b>	<b>ECTS</b>
Master Thesis preparation	
International Security Law	4
Intelligence Analysis: Theory and Practice	4
Forensic Science and Security	4
Cybercrime and Cyberterrorism	4
Networking: Extracting and analysing digital evidence from network and telecommunications systems	4
Regional Security and Intelligence	4
Assessment of Low Level File and Operating Systems	4
Computer Forensics: Practice and Procedure	4