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November 7, 2012 UCITE CWRU

Re: Nord grant application

Dear Nord grant committee members,

In 2013, I will develop a new course named "App Development for iOS". The primary objective of the course is to teach students how to develop apps for Apple's iPhone and iPad, the leading mobile devices on the market.

It has been evidenced that recent developments in mobile devices including tablets and smart phones have revolutionized the area of mobile computing. It has been reported that mobile devices outsold PCs for the first time in 2011. The age of mobile computing is here and it has already generated tremendous impact on the society. For example, smart phone apps have already changed the way how people entertain (gaming, video), how people learn (education), how people obtain information (media and mobile social networks), how they travel (maps), and how they perform their day-to-day life. As mobile computing reaches global ubiquity, new businesses centered in such technologies are constantly arise and old businesses can increase their profit by taking Figure 1 Image credit: apple.com advantage them.



Given the increasing importance of this area, equipping our students in EECS (especially those in CS) with necessary knowledge and skills to allow them to be competent in developing software applications for mobile devices is absolutely essential. The proposed new course will fulfill such a demand and prepare students with proper training in developing apps for iPhone and iPad. However, in order to offer the course and to allow students to develop and deploy real world apps, some equipment and devices from Apple are needed, which is listed in Table 1. We therefore seek the support from UCITE and submit this application to the Nord grant. Your assistant in this important development is highly appreciated.

Budget Justification

We request one MacBook for the instructor of the course and one MacBook Air for the TA of the course. Mac computers are necessary in order to program the devices. These laptops will be used by the instructor and TA to develop apps and to demonstrate those to the students. We request two iPad and six iPod touch for deployment of developed apps. Students who do not have these devices can borrow these devices from the instructor and TA to test their programs. Ideally, we should also have an iPhone for testing functions that are only available on iPhones. However, we understand that the total amount is already \$7370, which is higher than a typical grant. But all these are essential even for a small class and the department cannot provide the required resources for the course. The computers will belong to the class/department and will be used by future instructors of the course. We sincerely hope that the committee will endorse our proposal on this important development.

Cost sharing

The department will either provide a TA or cost share up to \$1500 of hourly support (TA).

Description	Price	
MacBook Pro 15-inch with Retina Display: 2.3GHz Quad-core Intel Core i7 (one for Instructor)	\$1999	19 A.
MacBook Air 13-inch: 256G (one for TA)	\$1449	
iPad Wi-Fi + Cellular for Verizon 64GB - White (one)	\$829	
iPad with Wi-Fi 64GB – Black (one)	\$699	
iPod touch 64GB (six)	\$2394	

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Dr. Michael S. Branicky, ScD, PE Professor and Chair, Department of Electronic Engineering and Computer Science Case Western Reserve University