10/25/2008

U.S. Department of Homeland Security
Citizenship and Immigration Services

Re: Arunesh Mishra

Dear Sir or Madam:

By this letter, I wish to support Dr. Arunesh Mishra's application for permanent resident status in the United States as an Outstanding Researcher. I am providing this recommendation based on my expertise in the field of wireless networking and mobile computing.

I am an Associate Professor in the Computer Science Department, at the Stony Brook University. I received my Ph.D. in Computer Science from Georgia Institute of Technology, Atlanta, in 1994. My research interests are in wireless networking and mobile computing, focusing on protocols, systems and performance evaluation. I received the U.S. National Science Foundation's CAREER award in 1998 and the best paper award in ACM MobiSys 2007, which is a top-tier conference in the wireless space. I have been a speaker in the Distinguished Visitor program of the IEEE Computer Society during 2001-03. I co-chaired the technical program committee for the ACM MobiHoc Symposium in 2001 and ACM MobiCom Conference in 2004, both of which are top-tier conferences in the broad area of wireless networking. I currently serve or have served on the editorial board of the IEEE/ACM Transactions on Networking, IEEE Transactions on Mobile Computing, ACM/Kluwer Wireless Networks Journal and Ad Hoc Networks journal, all of which are highly reputed journals in the area of wireless networking and mobile computing.

I learnt of the research conducted by Dr. Mishra through his publications and interacting with him through emails. I read his work on "Client-driven Channel Management" which appeared in IEEE Infocom 2006, a highly reputed conference in the broard area of computer networking. Prior to this, some portions of his work also appeared in the ACM Mobile Computer Communications Review (MC2R) in 2005. These papers and area of work have been very widely cited in the research community. This seminal work presents key concepts and algorithmic solutions to tackle the challenging problem of assigning frequency channels to WiFi Access Points. This was the first paper to systematically uncover and theorize the domain of channel assignment for WiFi networks and propose a client-driven model for arriving at a solution. Given that WiFi networks are widely used at both offices and homes and spectrum is scarce, the problem of maximally utilizing available spectrum attains further significance.

 I met Dr. Arunesh Mishra at the 2006 ACM Mobicom Conference where he was presenting a paper on "Distributed Channel Management for Wireless Networks". This paper provides a fully distributed solution to efficiently utilizing the unlicensed spectrum in WiFi Hotspot environments. The paper proposes innovative solutions to the growing problem of interference and congestion in the wireless spectrum. This research work was further published at the ACM Sigmetrics conference in 2006, which showed how to take advantage of partially overlapped

channels to further improve spectral efficiency. Both conferences are highly selective and prestigious with acceptance rates close to 15 %.

Based on his expertise, I have solicited Dr. Mishra's expert reviews on some of the journal submissions to the IEEE Transactions on Mobile Computing and the IEEE/ACM Transactions on Networking. His contributions to selecting the best papers for these journals has been valuable.

Overall Dr. Mishra has numerous publications in all of the top conferences and journals in the area. His work is well received and cited throughout. I would rank Dr. Mishra within the top 5-10% of the researchers working in the industry today. His employment as an researcher in the US is definitely a major contribution to the advancement of the state-of-the-art in wireless networking in the country.

Based on these observations, I believe that Dr. Arunesh Mishra has made original, innovative and outstanding contributions to the area of mobile and wireless networking and this work has been recognized in the field by other researchers. Therefore, I strongly support his application for US permanent residency under the Outstanding Researcher Category.

Sincerely,

[company]

_____
[name]
[position]