Mukesh Tiwari
Cambridge, United Kingdom
+447824648138
mt883@cam.ac.uk

To
The Hiring Committee,
Eindhoven University of Technology,
Netherlands

Application for the post of Assistant Professor- Mathematics and Computer Science

Dear Hiring Committee,

I am writing to apply for the Lecture job in Assistant Professor- Mathematics and Computer Science. I have extensive research experience in (election) software security, theorem proving (Coq theorem prover), cryptography, and social choice theory. I have a PhD from the Australian National University, Canberra, Australia and Currently, I am working as a Senior Research Fellow at the University of Cambridge. Before moving to Cambridge, I was a research fellow at the University of Melbourne.

My research –constructing mathematically proven correct software program– perfectly aligns with your department. I can collaborate with many researchers working at Coding Theory and Cryptology group on diverse set of projects because of my expertise in theorem proving (Coq), e.g., Berry Schoenmakers on formalising voting projects, Tanja Lange and Andreas Hülsing on formalising post-quantum cryptography for voting, Sven Schäge on formalising cryptographic protocols, etc. In addtion, as an assistant professor at the Eindhoven University of Technology, I would like to expand my research area into other areas of security and formal verification, e.g., domain specific language to reason about functional correctness and security properties –from computational complexity perspective– of cryptographic algorithms, anonymous communication, blockchain, zkSNARK, information flow security, computational complexity of social choice methods, etc. My research has been published in top-tier conferences, e.g., Interactive Theorem Proving (ITP), Computer and Communications Security (CCS), USENIX security, Electronic Voting (EVote), International Conference on Cryptology in India (IndoCrypt), and some (finished) works have been submitted to CCS and SIGCOMM. All my research work has been formalised in the Coq theorem prover.

I look forward to hearing from you. Please let me know if you have any questions.

Your Sincerly,

Mukesh Tiwari