



# JAMIA HAMDARD

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(Declared as Deemed to be University under Section 3 of  
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dated 10.5.1980 of the Government of India)

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Accredited by NAAC in 'A' Category

## CERTIFICATE

On the basis of the declaration submitted by **Mr. Ahmad Nafis (Enrolment No: 2020-549-001)** a student of **M.Tech Computer Science and Engineering with Specialization in (Cyber Forensics & Information Security)**, I hereby certify that the dissertation entitled **"Differential Privacy in Recommender System: challenges and opportunities"** being submitted to the Department of Computer Science & Engineering, Jamia Hamdard, New Delhi in partial fulfilment of the requirement for the award of the degree of **M.Tech Computer Science and Engineering with Specialization in (Cyber Forensics & Information Security)** is carried out by her under my supervision.

**Mr. Jawed Ahmed**

(Supervisor)

  
**Mr. Zeeshan Ali Haq**

(Co-supervisor)

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