

**Faculty of Engineering and Technology  
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**Certificate**

This is to certify that the thesis entitled "Hybrid model of PMSG based WECS with PV Array connected to the grid using back-to-back converter", submitted by Mr. Pritam Kumar (Examination Roll No. M4ELE22009), under our supervision and guidance during the session of 2020-22 in the department of Electrical Engineering, Jadavpur University. We are satisfied with his work, which is being presented for the partial fulfilment of the degree of Master in Electrical Engineering from Jadavpur University, Kolkata-700032.

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