

**APPROVAL PAGE**

**MASTER'S THESIS**

**AN EFFICIENT GROUP AUTHENTICATION IN WIRELESS SENSOR  
NETWORK USING ELLIPTIC CURVE DIFFIE HELLMAN (ECDH) AND  
PASSWORD AUTHENTICATED KEY EXCHANGE BY JUGGLING  
(J-PAKE) METHOD**

by

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**Approved and authorized to be filled in  
Program of Master of Electrical-Telecommunication Engineering  
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