

ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

(Approved by AICTE, New Delhi, and Accredited by NAAC and affiliated to

Jawaharlal Nehru Technological University, Kakinada)

Surampalem-533437, Peddapuram, E. G. Dt., A.P

DEPARTMENT OF MECHANICAL ENGINEERING



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This is to certify that the thesis/dissertation entitled "THERMAL ANALYSIS OF REFRIGERATION SYSTEM BY USING NANO REFRIGERANTS" is being submitted by Miss. NUKELLA GANGA SRI RAMA LAKSHMI bearing Regd. No. 14P31D2107 in partial fulfilment for the award of MASTER OF TECHNOLOGY in THERMAL ENGINEERING to the Jawaharlal Nehru Technological University Kakinada is a record of bonafide work carried out by him/her under our guidance and supervision.

The results embodied in this thesis have not been submitted to any other University or Institute for the award of any degree or diploma.

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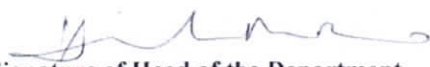
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This is to certify that the thesis/dissertation entitled **DESIGN AND CFD ANALYSIS ON COATED STEAM TURBINE BLADE** is being submitted by Mr. **BATHINEEDI NAGABABU** bearing Regd...No **15P31D2101** in partial fulfilment for the award of **MASTER OF TECHNOLOGY** in **THERMAL ENGINEERING** to the Jawaharlal Nehru Technological University Kakinada is a record of bonafide work carried out by him/her under our guidance and supervision.

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This is to certify that the thesis/dissertation entitled “MINIMIZATION OF ENTROPY IN SHELL AND TUBE HEAT EXCHANGER” is being submitted by Miss G.SNEHALATHA bearing Regd. No 16P31D2101 in partial fulfilment for the award of **MASTER OF TECHNOLOGY** in **THERMAL ENGINEERING** to the Jawaharlal Nehru Technological University Kakinada is a record of bonafide work carried out by him/her under our guidance and supervision.

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CERTIFICATE

This is to certify that the thesis/dissertation entitled “**EXPERIMENTAL INVESTIGATION ON ENGINE PERFORMANCE AND EMISSION ANALYSIS OF DIESEL ENGINE OPERATING ON CALOPHYLLUM INOPHYLLUM OIL BIODIESEL BLENDS BY USING Al_2O_3 NANOPARTICLES WITH EGR**” is being submitted by Miss. **KYLASH SUJATHA** bearing Regd.No 16P31D2103 in partial fulfillment for the award of **MASTER OF TECHNOLOGY** in **THERMAL ENGINEERING** to the Jawaharlal Nehru Technological University Kakinada is a record of bonafide work carried out by him/her under our guidance and supervision.

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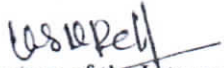
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This is to certify that the thesis/dissertation entitled DESIGN AND OPTIMIZATION OF WATER COOL CHILLER FOR CENTRAL AIR CONDITIONER is being submitted by **Ms. M. Lakshmi** bearing Regd...No 16P31D2104 in partial fulfilment for the award of **MASTER OF TECHNOLOGY** in **THERMAL ENGINEERING** to the Jawaharlal Nehru Technological University Kakinada is a record of bonafide work carried out by him/her under our guidance and supervision.

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This is to certify that the thesis/dissertation entitled “Heat Transfer Enhancement using PIN-FIN Apparatus” is being submitted by Mr. V DURGA SATEESH JUTTA bearing Regd.No.15P31D2115 in THERMAL ENGINEERING to the Jawaharlal Nehru Technological University Kakinada is a record of bonafide work carried out by him under our guidance and supervision.

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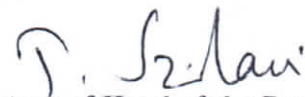
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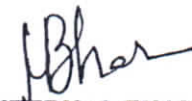


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This is to certify that the thesis/dissertation entitled "**Heat Transfer Enhancement in a Concentric Tube Heat exchanger with Screw Type Twisted tape**" is being submitted by Mr. **TAMMARAO KARRI** bearing Regd.No.16P31D2106 in **THERMAL ENGINEERING** to the Jawaharlal Nehru Technological University Kakinada is a record of bonafide work carried out by him under our guidance and supervision.


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