

TEZPUR UNIVERSITY SCHOOL OF ENGINEERING DEPARTMENT OF ENERGY

Forwarding Certificate

I hereby recommend that the thesis prepared under my supervision by Bismita Roy entitled "Thermodynamic optimization of biomass gasification process by using non-stoichiometric equilibrium modeling" be accepted in partial fulfillment of the requirements for the degree of Master of Technology in Energy Technology.

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Certificate of Approval

The foregoing thesis by **Bismita Roy (Registration Number ENE10018)** is hereby approved as a creditable study carried out and presented in a manner satisfactory to warrant its acceptance as a pre-requisite to the degree for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve only for the purpose for which it is submitted.

Committee On

Final Examination for

Evaluation of Thesis

DECLARATION

I, Bismita Roy, hereby declare that this thesis entitled "Thermodynamic optimization of biomass gasification process by using non stoichiometric equilibrium modeling" is submitted to the Department of Energy, Tezpur University, Tezpur, Assam, India for acceptance to award the degree of the Master of Technology in Energy Technology is prepared by me and the same has not been/is not being submitted to any other institution.

Date: 4.6.2013 Place: Tezpur

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