

## **DECLARATION**

I, do hereby declare that the thesis entitled "Nanocomposites of Bio-Derived Waterborne Hyperbranched Polyester and Carbon-Based Nanomaterials", submitted to the Department of Chemical Sciences, Tezpur University, under the School of Sciences is a record of original research work carried out by me. All sources of assistance have been assigned with due acknowledgment. I, also declare that neither this work as a whole nor any part of it has been submitted to any other University or Institute for any kind of degree, diploma or award.

**Place:** Tezpur University, Tezpur

Date: (Deepshikha Hazarika)



(A Central University Established by an Act of Parliament)

Napaam, Tezpur-784028, Sonitpur, Assam, India

Dr. Niranjan Karak

**Professor** 

**Department of Chemical Sciences** 

Phone: +91-3712-267004 (O)

Fax: : +91-3712-267005 (O)

Email: nkarak@tezu.ernet.in

**CERTIFICATE** 

This is to certify that the thesis entitled "Nanocomposites of Bio-Derived Waterborne

Hyperbranched Polyester and Carbon-Based Nanomaterials" submitted to Tezpur

University, in the Department of Chemical Sciences, under the School of Sciences, in

partial fulfillment for the award of the degree of Doctor of Philosophy in Science is a

record of research work carried out by Ms. Deepshikha Hazarika under my supervision

and guidance.

All help received by her from various sources have been duly acknowledged.

No part of this thesis has been reproduced elsewhere for award of any other degree.

**Place:** Tezpur University, Tezpur

Date:

**Professor** 

(Dr. Niranjan Karak)

Department of Chemical Sciences

School of Sciences

**Tezpur University** 

iv

Date:

Napaam, Tezpur-784028, Sonitpur, Assam, India

Phone:+91-3712-267004 (O) Fax: +91-3712-267005 (O)

## **CERTIFICATE**

This is to certify that the thesis entitled "Nanocomposites of Bio-Derived Waterborne
Hyperbranched Polyester and Carbon-Based Nanomaterials" submitted to Tezpur
University, in the Department of Chemical Sciences, under the School of Sciences, in
partial fulfillment for the award of the degree of Doctor of Philosophy in Science has
been examined by us on
The committee recommends for the award of the degree of Doctor of Philosophy.
Principal Supervisor External Examiner

Date: