



A

Project Report on

**SYNTHESIS AND CHARACTERIZATION OF  
LOW-METHOXY PECTIN/TAMARIND GUM-g-  
CAFFEIC ACID BASED FILMS AS FOOD  
PACKAGING MATERIALS**

*Submitted by*

**SOMRITA SAHA**

*University Regn. No. 221892310008(2022-23)*

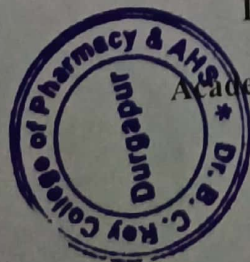
*Roll No. -18921822004*

Under the guidance of  
**Dr. Hriday Bera,**  
Associate Professor

In partial fulfilment of the Requirement for the Degree of  
**Master of Pharmacy in Industrial Pharmacy**

Submitted to  
**Maulana Abul Kalam Azad University of Technology  
West Bengal**

**Dr. B. C. Roy College of Pharmacy and Allied Health Sciences  
Durgapur 713206**



Academic Year: 2023 – 2024

*Prof. (Dr.) Samir Kumar Samanta  
M. Pharm., Ph.D (J.U.)  
Principal  
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Durgapur, West Bengal-713206*



## DECLARATION

I hereby declare that the Project entitled "synthesis and characterization of tamarind gum-g-caffeic acid/low-methoxy pectin based films as food packaging materials" in partial fulfilment of the requirement for the award of Master of Pharmacy submitted to Maulana Abul Kalam Azad University of Technology, West Bengal, is an authentic record of bona fide work carried out by me under the guidance of Dr. Hriday Bera.

The matter embodied in this Project has not been submitted for the award of any other degree or diploma to any University / Institution.

*Somrita Saha*  
\_\_\_\_\_  
Signature

Name of Candidate: SOMRITA SAHA

Roll No: 18921822004

Date: 5/6/24

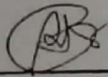
Place: Durgapur



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Prof. (Dr.) Samir Kumar Samanta  
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### CERTIFICATE

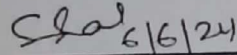
This is to certify that the Project entitled "synthesis and characterization of tamarind gum-g-caffeic acid/low-methoxy pectin based films as food packaging materials" by SOMRITA SAHA in partial fulfilment for the MASTER OF PHARMACY (INDUSTRIAL PHARMACY) under MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY is a record of the original research work under our supervision and up to our satisfaction. To our knowledge, neither this thesis nor any part of it has been submitted for any other academic award anywhere before. The thesis is forwarded to Controller of Examination MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY for assessment.



Signature of Guide

Name of Guide: DR. HRIDAY BERA

Place: DURGAPUR  
Date: 5/6/24



Signature of the External

Examiner


Place:  
Date:



PROF. SAMIR KUMAR  
SAMANTA  
(PRINCIPAL)

Prof. (Dr.) Samir Kumar Samanta  
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