

## CERTIFICATE

This is to certify that the thesis entitled “**Starch Characterization, Functional Properties, Prebiotic Potential of Unripe Banana Flours and Development of Ready-to-Eat and Ready-to-Cook Products**” submitted for the award of **Degree of Doctor of Philosophy in Food Service Management and Dietetics**, is a record of original research work done by **A. Haripriya**, during her period of study in the Department of Food Service Management and Dietetics, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, under my guidance and supervision and the thesis has not formed the basis for the award of any Degree/ Diploma/ Associateship/ Fellowship or similar title to any candidate of any other University or Institution and it represents entirely an independent work on the part of the candidate.




Signature of the

Head of the Department



Signature of the Supervisor



Signature of the Dean

## DECLARATION

I hereby declare that the dissertation entitled “**Starch Characterization, Functional Properties, Prebiotic Potential of Unripe Banana Flours and Development of Ready-to-Eat and Ready-to-Cook Products**” submitted to the Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, in partial fulfillment of the requirements for the award of Degree of **Doctor of Philosophy in Food Service Management and Dietetics**, is a record of original research work done by me under the supervision and guidance of **Dr. S. Uma Mageshwari**, Professor, Department of Food Service Management and Dietetics, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, and it has not formed the basis for the award of any Degree/ Diploma/ Associateship/ Fellowship or similar title to any candidate of this Institute or any other University or Institutions. It represents entirely an independent work on the part of the candidate.

  
Signature of the Supervisor

  
Signature of the Candidate

## ACKNOWLEDGEMENT

At the outset, I extend my deepest gratitude to the **Almighty** for granting me the strength, wisdom, health, and perseverance to complete this research.

I pay reverential homage to Late **Dr. T. S. Avinashilingam, Founder**, and Late **Hon. Padmashri Dr. Rajammal P. Devadas, Former Chancellor** of Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, whose vision and dedication laid the foundation for this esteemed institution. I sincerely thank **Sri. T.S.K. Meenakshi Sundaram, Managing Trustee and Chancellor**, for his unwavering support in providing the necessary infrastructure and resources for this study. I am deeply grateful to **Dr. V. Bharathi Harishankar, Vice Chancellor**, for the steadfast support and encouragement throughout my research journey.

I extend my sincere gratitude to **Dr. H. Indu, Registrar**, for the administrative guidance and unwavering encouragement. My profound gratitude to **Dr. Sampath Rani, Controller of Examinations**, for her invaluable administrative guidance. I am profoundly thankful to **Dr. P. Lalitha, Director, Research and Development Cell**, for the insightful guidance and timely support.

I also extend my gratitude to **Dr. S. Amsamani, Dean, School of Home Science**, for the continuous encouragement and support. I am deeply grateful to **Dr. Premala Priyadharsini, Professor and Head**, Department of Food Service Management and Dietetics, for the encouragement and academic mentorship.

I am profoundly grateful to my research supervisor, **Dr. S. Uma Mageshwari, Professor**, Department of Food Service Management and Dietetics. Her exemplary mentorship, unwavering patience, and constructive feedback have been instrumental in shaping this research.

I extend my sincere gratitude to **Dr. Usha Antony, Dean**, College of Fish Nutrition & Food Technology, Dr. J. Jayalalithaa Fisheries University, Chennai, for her expert insights and valuable suggestions throughout my research.

I extend my gratitude to all the **Faculty members** of the Department of Food Service Management and Dietetics for their academic support and encouragement.

My sincere and profound gratitude goes to **Shri. Manoj Kumar Sonthalia, Secretary**, and **Dr. Archana Prasad, Principal**, M.O.P. Vaishnav College for Women, Chennai, for their unwavering support, encouragement, and provision of research facilities.

I am also grateful to the Faculty of the Department of Food Science and all my faculty colleagues and staff at M.O.P. Vaishnav College for their support and encouragement throughout this research.

I sincerely thank my fellow **Research Scholars** in the Department of Food Service Management and Dietetics for their invaluable support.

Finally, I am forever grateful to my family for their unconditional love and prayers.

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## ACRONYMS AND ABBREVIATIONS

UBF	Unripe Banana Flour
PUBF	Peyan Unripe Banana Flour
MUBF	Monthan Unripe Banana Flour
RS	Resistant Starch
KAP	Knowledge, Attitude and Practice
RTE	Ready To Eat
RTC	Ready To Cook
RTS	Ready To Serve
OAC	Oil Absorption Capacity
WSI	Water Solubility Index
WAC	Water Absorption Capacity
WAI	Water Absorption Index
WHC	Water Holding Capacity
SP	Swelling Power
SV	Swelling Volume
LGC	Least gelation Concentration
TSS	Total Soluble Solids
ABTS	2,2'-azino-bis(3-ethylbenzothiazoline-6-sulfonic acid) - a compound used in antioxidant activity measurement assays.
FRAP	Ferric Reducing Antioxidant Power - an assay to measure the antioxidant potential of food substances.
DPPH	2,2-Diphenyl-1-picrylhydrazyl- a chemical compound used in antioxidant assays to measure the free radical scavenging ability of substances.
CWF	Control Wheat Flour
TPC	Total Plate Count
I <sub>preb</sub> /PI	Prebiotic Index

CFU	Colony Forming Units
GI	Glycemic index
eGI	Estimated Glycemic Index
XRD	X-ray diffraction
SEM	Scanning Electron Microscopy
FT-IR	Fourier-transform infrared (FT-IR) spectra
OD	Optical Density
DS	Digestible Starch
AMG	Amyloglucosidase
DF	Dietary Fiber
FFA	Free Fatty Acids