

DECLARATION

I, hereby declare that this thesis entitled “**APPLICATION OF ATMOSPHERIC PRESSURE COLD PLASMA ON THE QUALITY ATTRIBUTES OF FINGER MILLETS**” is a bonafide record of research work done by me during the course of research and the thesis has not previously formed the basis for the award to me of any degree, diploma, associateship, fellowship or other similar title, of any other University or Society.

Place: Tavanur

Date:

Arsha Sugathan

(2022-18-002)

CERTIFICATE

Certified that this thesis entitled “**APPLICATION OF ATMOSPHERIC PRESSURE COLD PLASMA ON THE QUALITY ATTRIBUTES OF FINGER MILLETS**” is a bonafide record of research work done independently by **Ms. Arsha Sugathan (2022-18-002)** under my guidance and supervision and that it has not previously formed the basis for the award of any degree, diploma, fellowship or associateship to her.

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CERTIFICATE

We, the undersigned members of the advisory committee of **Ms. Arsha Sugathan (2022-18-002)**, a candidate for the degree of Master of Technology in Agricultural Engineering with major in Processing and Food Engineering, agree that the thesis entitled “**APPLICATION OF ATMOSPHERIC PRESSURE COLD PLASMA ON THE QUALITY ATTRIBUTES OF FINGER MILLETS**” may be submitted by **Ms. Arsha Sugathan (2022-18-002)** in partial fulfilment of the requirement for the degree.

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Arsha Sugathan

Dedicated
to
My Beloved
Family, Teachers,
and Friends

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ABBREVIATIONS AND SYMBOLS

%	:	Percent
% wb	:	Percent wet basis
&	:	And
/	:	Per
@	:	At the rate of
+	:	Plus
<	:	Less than
>	:	Greater than
±	:	Plus or minus
a*	:	Greenness or redness
b*	:	Blueness or yellowness
°C	:	Degree Celsius
cm ²	:	Square centimetre
g/g	:	Gram per gram
g/l	:	Gram per litre
g/mL	:	Gram per millilitre
GAE	:	Gallic Acid Equivalence
GHz	:	Giga Hertz
hr	:	Hours
Hz	:	Hertz

kGy : Kilo Gray

kHz : Kilo Hertz

kV : Kilovolt

L* : Lightness or darkness

L : Litre

mg/ g : Milligram per gram

mg/100 g : Milligram per 100 grams

mg/kg : Milligram per kilogram

Min : Minute

ml : Millilitre

mm : Millimetre

MPa : Megapascal

MW : Megawatt

nm : Nanometre

Pa : Pascal

Pa.s : Pascal seconds

R² : Coefficient of determination

rpm : Revolutions per minute

s : Seconds

AAD : Average Absolute Deviation

ANOVA : Analysis of Variance

AOAC : Association of Official Analytical Chemists

APEDA : Agricultural and Processed Food Products Export Development Authority

CFU : Colony Forming Units

CP : Cold Plasma

E_C : Emulsifying Capacity

et al. : And others

etc : Etcetera

F_C : Foaming Capacity

FTIR : Fourier Transform Infrared

HPP : High Hydrostatic Pressure

i.e., : That is

KAU : Kerala Agricultural University

KCAEFT : Kelappaji College of Agricultural Engineering and Food Technology

LDPE : Low-Density Polyethylene

MPE : Mean Percentage Error

MSE : Mean Square Error

NMSE : Normal Mean Square Error

NRMSE : Normal Root Mean Square Error

O_{AC} : Oil Absorption Capacity

PDA : Potato Dextrose Agar

RF : Radio Frequency

RSM : Response Surface Methodology

SEM : Scanning Electron Microscopy

W : Watt

W_{AC} : Water Absorption Capacity

W_{SI} : Water Solubility Index