

Indian Institute of Technology
Delhi

Upon the recommendation of the Senate
hereby confers the degree of

Doctor of Philosophy

on

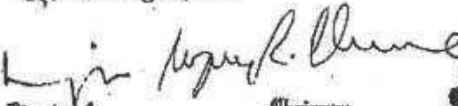
Ram Prakash Rustagi


Thesis title:

Studies in Concurrency Control for Centralized,
Distributed and Nested Transaction Systems

Given this day under the seal of the Institute at Delhi in
the Republic of India.

The 14th August, 1999


Director & Chairman,
Chairman Senate Board of Governors


Registrar



VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
KARNATAKA, INDIA



This is to certify that

VANEETA M

has been conferred the Degree of

Doctor of Philosophy

in

FACULTY OF COMPUTER & INFORMATION SCIENCES

for the thesis entitled

NOVEL KEY DISTRIBUTION AND SECURITY FRAMEWORK FOR NODE
LEVEL COMMUNICATION FOR WIRELESS SENSOR NETWORKS

*in recognition of the fulfillment of requirements
for the said degree*

PH
19 001635

Given under the seal of the University

USN: 1KS15PEJ04



BELAGAVI

DATE : MARCH 10, 2022

VICE CHANCELLOR

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
KARNATAKA, INDIA



This is to certify that

AMULYASHREE S

has been conferred the Degree of

Doctor of Philosophy

in

FACULTY OF COMPUTER & INFORMATION SCIENCES

for the thesis entitled

DESIGN A ROBUST FRAMEWORK WITH AN EFFICIENT LINK MINING
ALGORITHM FOR SOCIAL AND BIOLOGICAL NETWORKS

*in recognition of the fulfillment of requirements
for the said degree*

PH
23 00335

Given under the seal of the University

USN: 1RV16PEJ23



BELAGAVI

DATE : FEBRUARY 24, 2023

VICE CHANCELLOR

13PHD1033

Sl. No. 103470



The Board of Management of the
Vellore Institute of Technology (VIT)
hereby confers on

DEEPA S.R

the degree of

DOCTOR OF PHILOSOPHY

in recognition of the research work entitled

BIO-INSPIRED CLUSTER OPTIMIZATION IN WIRELESS SENSOR NETWORK

for having fulfilled the prescribed requirements.

The degree has been awarded in compliance with the
"University Grants Commission, Regulation 2009"

given this day the 14 September 2020

Given under the seal of this university



R.B. Kockali
Vice - Chancellor

[Signature]
Chancellor

Dated: 19-Oct-2020

Vellore - 632 014, Tamil Nadu, India

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

HYDERABAD - 500 085, TELANGANA STATE, INDIA

TS 688185



H.T No. : 0703PH0614

Ms. Rekha B Venkatapur

D/o. Venkatapur B

having fulfilled the academic requirements in *June, 2016*

has this day been admitted by the Executive Council to the Degree of

Doctor Of Philosophy

Computer Science And Engineering

Topic : *A Robust Hierarchical Clustering Algorithm for Video Watermark*

Given under the Seal of the University

Date: 09-09-2016



[Signature]
DEAN FOR EMERGENCY
[Signature]
14-8-16

[Signature]
REGISTRAR

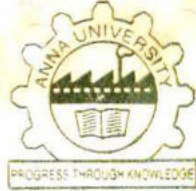
[Signature]
VICE CHANCELLOR



40281652772

PC NO
316000364

K.S. INSTITUTE OF TECHNOLOGY
- BENGALURU - 560 109



Reg.No. 11090053017/RG

The Syndicate of the Anna University hereby makes known that
PRASANTHA H S *has been admitted to the* **DEGREE OF DOCTOR OF PHILOSOPHY** *under the* **Faculty of Information and Communication Engineering**, *having been certified by the duly appointed examiners to be qualified to receive the same in the year* **2013**.


Title of the Thesis:

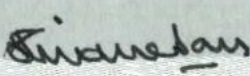
DIGITAL SIGNAL PROCESSOR IMPLEMENTATION OF SOME NOVEL ALGORITHMS FOR VIDEO PROCESSING ON MOBILE DEVICES


Given under the Seal of the University



Chennai 600 025
India
March 2013


Controller of Examinations


Registrar


Vice-Chancellor

11090053017/RG

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
KARNATAKA, INDIA



This is to certify that

VIJAYALAXMI MEKALI

has been conferred the Degree of

Doctor of Philosophy

in

FACULTY OF COMPUTER & INFORMATION SCIENCES

for the thesis entitled

MEDICAL IMAGE ANALYSIS USING COMPUTATIONAL METHODS TO
DETECT AND DIAGNOSE CANCER TUMOR

*in recognition of the fulfillment of requirements
for the said degree*

PH 19 001651 Given under the seal of the University

USN: 1RN13PEN05

BELAGAVI

DATE : MARCH 10, 2022


VICE CHANCELLOR

CC 051364

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR



ANANTAPUR - 515 002, ANDHRA PRADESH, INDIA

H.T.No: 0803PH0822

Pattipathi Naga Sudha

D/o Ranga Reddy B

*having fulfilled the academic requirements in November, 2013 has this day
been admitted by the Monitoring & Development Committee to the Degree of*

Doctor of Philosophy
(Electronics & Communication Engineering)

for the Thesis entitled,
"SPEECH COMPRESSION AND ERROR CORRECTION FOR MOBILE
COMMUNICATION"

Monday, 16 December, 2013.

Given under the Seal of the University




Director of Evaluation


Registrar


Vice Chancellor

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

HYDERABAD - 500 085, TELANGANA STATE, INDIA

TS 688303



H.T No.: 0803PH08A42

Ms. Surekha Borra

D/o. Venkata Narayana

having fulfilled the academic requirements in *February, 2015*
has this day been admitted by the Executive Council to the Degree of

Doctor Of Philosophy

Electronics & Communication Engineering

Topic : Image Data Hiding for Copyright Protection based on Visual
Cryptography Schemes

Given under the Seal of the University -

Date: 17-09-2016



DIRECTOR OF EVALUATION

REGISTRAR

VICE-CHANCELLOR



460201552883

PC No
21777026418

ENROLMENT NO.: AU141787



Hereby confers the degree of
DOCTOR OF PHILOSOPHY



in
Electronics & Communication Engineering
on
Sangappa

who has fulfilled all the requirements prescribed
under the regulations and successfully defended the thesis on

14th, July 2017

entitled

**A Cross Layer Architecture Based Robust Routing Protocol for
Inter-Vehicular Communication in VASNET**

पद द्वारा प्रदान करता है

डॉक्टर ऑफ फिलॉसफी

की उपाधि

इलेक्ट्रॉनिक्स एण्ड कम्युनिकेशन इंजीनियरिंग

में

संगप्पा

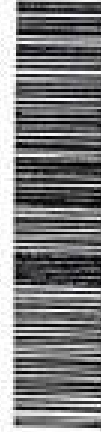
को उसके द्वारा जवाबती हेतु विनियम विहित सभी आहताओं को पूर्णकर अपने शोध प्रबंध को

14 जुलाई 2017 में

सफलतापूर्वक प्रस्तुत करने पर, जिसका शीर्षक है :

अ क्रॉस लेयर आर्किटेक्चर बेस्ड रोबस्ट राउटिंग प्रोटोकॉल फॉर इन्टर-वीकूलर
कम्युनिकेशन इन वासनेट

Given this day under the seal of the University at Raisen
(Madhya Pradesh) in the Republic of India




Registrar

Date : 20/02/2018
Raisen (M.P.) India


Vice-Chancellor

JUC 70029

JGI



JAIN UNIVERSITY

Declared as Deemed-to-be University vide 3 of the UGC Act, 1956
vide MHRD Notification No. F-9-57(2007-UJA)

*We, the Chancellor, Vice Chancellor,
Members of the Board of Management &
Academic Council of Jain University certify that*

B Sudarshan

*having been examined in February-2017
with Reg. No. 10PPECE146
has been conferred with the Degree of*

DOCTOR OF PHILOSOPHY
in Electronics Engineering

*by Jain University, Bengaluru
on the 6th day of January 2018.
In Testimony whereof are set the seal of the
said University and the signature of the
said Vice Chancellor*

Date : 06.01.2018

N. Sudarshan
Vice Chancellor

जैन विश्वविद्यालय

विश्वविद्यालय अधिनियम अधिनियम, 1956 के अनुच्छेद 3 के अन्तर्गत भारत संघाध्यक्ष विद्यालय संशोधन की
अधीनस्थ संख्या एच. 9-57(2007-उज) के द्वारा मान्य-विश्वविद्यालय के रूप में घोषित

हम, जैन विश्वविद्यालय के कुलाधिपति, कुलपति,
प्रबन्धन परिषद् के सदस्य एवं
शिक्षा समिति, प्रमाणित करते हैं कि

बि. सुदर्शन

जिनकी पंजीयन संख्या 10PPECE146 है,
फरवरी - 2016 के परीक्षोपरांत

पीएच. डी.
विद्युन्मान अभियांत्रिकी

की उपाधि में उत्तीर्ण हुए।
जैन विश्वविद्यालय, बैंगलूरु की ओर से
दिनांक 6 जनवरी 2018 को इन्हें यह उपाधि
प्रदान की गई है, जिसके प्रमाण स्वरूप उक्त
विश्वविद्यालय की मोहर एवं
उक्त कुलपति के हस्ताक्षर अंकित हैं।

B. Sudarshan
कुलपति

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM
KARNATAKA, INDIA



This is to certify that

CHANDA V REDDY

has been conferred the Degree of

Doctor of Philosophy

in

Faculty of Electrical & Electronics Engineering Sciences

for the thesis entitled

*Bit Loading Algorithm With Optimised Bitrate And Power
Allocation In Wireless Communication System*

*in recognition of the fulfillment of requirements
for the said degree*

PH
13 001433

Given under the seal of the University;

USN: 1RV10PEN01



BELGAUM

DATE : March 18, 2019

A handwritten signature in black ink, likely belonging to the Vice Chancellor.
VICE CHANCELLOR

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
KARNATAKA, INDIA



This is to certify that

REKHA N

has been conferred the Degree of

Doctor of Philosophy

in

FACULTY OF ELECTRICAL & ELECTRONICS ENGINEERING SCIENCES

for the thesis entitled

NOISE CANCELLATION IN GSM LOGICAL CHANNEL USING SEARCH
ALGORITHM

*in recognition of the fulfillment of requirements
for the said degree*

PH 19 000746 Given under the seal of the University

USN: 1KS14PEM01



BELAGAVI

DATE : APRIL 03, 2021


VICE CHANCELLOR

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
KARNATAKA, INDIA



This is to certify that

DINESH KUMAR D S

has been conferred the Degree of

Doctor of Philosophy

in

FACULTY OF ELECTRICAL & ELECTRONICS ENGINEERING SCIENCES

for the thesis entitled

A NOVEL MULTI ALGORITHM BASED SPEECH & FACE RECOGNITION
(MULTI MODAL) SYSTEM FOR THE ANALYSIS OF FAR & FRR

*in recognition of the fulfillment of requirements
for the said degree*

PH 19 001061

Given under the seal of the University

USN: 1TJ12PEN04



BELAGAVI

DATE : APRIL 03, 2021

VICE CHANCELLOR

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
KARNATAKA, INDIA



This is to certify that

DEVIKA B

has been conferred the Degree of

Doctor of Philosophy

in

FACULTY OF ELECTRICAL & ELECTRONICS ENGINEERING SCIENCES

for the thesis entitled

OPTIMIZING POWER IN AD HOC NETWORKS

*in recognition of the fulfillment of requirements
for the said degree*

PH 19 000811 Given under the seal of the University

USN: 1KS14PEM03



BELAGAVI

DATE : APRIL 03, 2021

VICE CHANCELLOR

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
KARNATAKA, INDIA



This is to certify that

POOJA S

has been conferred the Degree of

Doctor of Philosophy

in

FACULTY OF ELECTRICAL & ELECTRONICS ENGINEERING SCIENCES

for the thesis entitled

A HYBRID REGULARIZATION ALGORITHM FOR EFFICIENT BLIND IMAGE
DEBLURRING

*in recognition of the fulfillment of requirements
for the said degree*

PH
23 00872

Given under the seal of the University

USN: IJS17PES04

BELAGAVI

DATE : FEBRUARY 24, 2023



VICE CHANCELLOR



Indian Institute of Technology, Madras

hereby confers the degree of
Doctor of Philosophy
of the Institute
on

VENKATESWARA ALIAS BALAJI K

*for successfully completing the prescribed programme of study and
presenting the thesis entitled*

**A STUDY OF SOME PSYCHOLOGICAL ANTECEDENTS
IN INDUSTRIAL ACCIDENTS**

Given this day the Twentysixth of July, 1996
under the seal of the Institute.

[Signature]
PRINCIPAL
K.S. INSTITUTE OF TECHNOLOGY
BENGALURU - 560 109.



[Signature]
Registrar

[Signature]
Director

[Signature]
Chairman, Board of Governors

Registration No.



03221012A



National Institute of Technology Karnataka, Surathkal

hereby confers the degree of

Doctor of Philosophy



on

Dilip Kumar K

in recognition of the research work on

Computer Aided Prediction Of Forming Severity In L-Bending Of Aluminum Sheet Metal

carried out in the Department of

Mechanical Engineering

and completed all the requirements

in May 2009

Given under the seal of the Institute,

on 5th May 2010

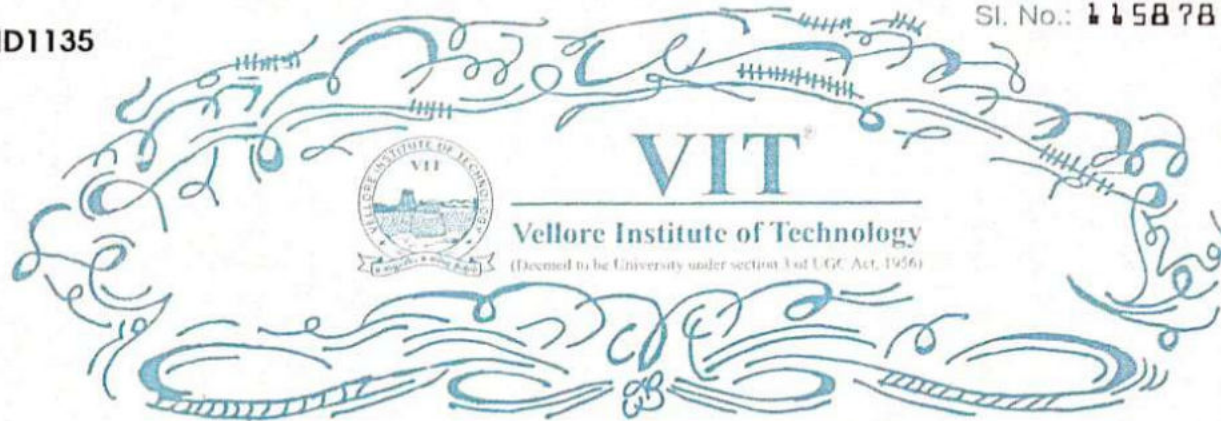


[Signature]
Registrar

[Signature]
Director

[Signature]
Chairman, Board of Governors

Sl. No. PH09036



The Board of Management of the
Vellore Institute of Technology (VIT)
hereby confers on



M UMASHANKAR

the degree of

DOCTOR OF PHILOSOPHY

in recognition of the research work entitled

TRIBOLOGICAL STUDIES ON ZINC-ALUMINIUM CAST ALLOYS

for having fulfilled the prescribed requirements.

The degree has been awarded in compliance with the
"University Grants Commission, Regulation 2009"

given this day the 16 June 2021



Given under the seal of this university



R B Kodali
Vice - Chancellor

[Signature]
Chancellor

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
KARNATAKA, INDIA



This is to certify that

NAGAPRASAD K S

has been conferred the Degree of

Doctor of Philosophy

in

Faculty of Mechanical Engineering Sciences

for the thesis entitled

*A Study on Effect of Fluid Injection on Diesel Engine
Performance and Emissions*

*in recognition of the fulfillment of requirements
for the said degree*

PH
19 000332

Given under the seal of the University

USN: 1DA08PMN03



BELAGAVI

DATE : Feb 08, 2020

VICE CHANCELLOR

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM
KARNATAKA, INDIA



This is to certify that

GIRISH T R

has been conferred the Degree of

Doctor of Philosophy

in

Faculty of Mechanical Engineering Sciences

for the thesis entitled

*Development And Characterization of Hybrid Composite Using
Jute And Glass Fiber*

*in recognition of the fulfillment of requirements
for the said degree*

PH
13

001511

Given under the seal of the University

USN: 5VX12PMN37



A handwritten signature in green ink, likely of the Vice Chancellor, located at the bottom right of the certificate.

BELGAUM
DATE

: March 18, 2019

VICE CHANCELLOR

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
ANANTHAPURAMU - 515 002, ANDHRA PRADESH, INDIA

CC 067139

H.T.No:10PH0340

Aadhaar No:890764913798



L Nirmala

*D/o. L Rangaiah
&
Lingutla Ramathulasi*


*having fulfilled the academic requirements in August, 2019 has this day
been admitted by the Executive Council to the Degree of*

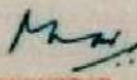
**** Doctor of Philosophy ****
(Mechanical Engineering)

for the Thesis entitled,
"STUDIES ON ABRASIVE WEAR, CORROSION RESISTANCE AND MICROSTRUCTURAL
PROPERTIES OF ZA27 NICKEL ALLOY"

Date of *Viva Voce* : 24.08.2019 Given under the Seal of the University
Saturday, 24 April, 2021.




DIRECTOR OF EVALUATION


REGISTRAR


VICE CHANCELLOR

P-020

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
HYDERABAD - 500 085, TELANGANA STATE, INDIA

S 1503275



T No.: 0903PH1526

Mr. Saleem Khan

No. Gulam Hussain

has fulfilled the academic requirements in *November - 2020*

and has been admitted by the Executive Council to the Degree of

Doctor of Philosophy

Mechanical Engineering

Topic: "Development of Hybrid Al6061-Si₃N₄-C_r Metal Matrix Composite".

Given under the Seal of the University

Date: 26-02-2022



[Signature]

RECTOR OF EVALUATION

[Signature]

VICE CHANCELLOR

[Signature]

VICE CHANCELLOR



410114100092

PC No
320001720



This is to certify that

JALAJA P

has been conferred the Degree of

Doctor of Philosophy

in

FACULTY OF APPLIED SCIENCES (MATHEMATICS)

for the thesis entitled

A NUMERICAL STUDY OF UNSTEADY INCOMPRESSIBLE BOUNDARY
LAYER THROUGH DOUBLE CHOKING SUPERSONIC EJECTORS

*in recognition of the fulfillment of requirements
for the said degree*

PH 001156 Given under the seal of the University
19

USN: 1EW15PGJ04



BELAGAVI

DATE : APRIL 03, 2021

VICE CHANCELLOR



ವಿಶ್ವವಿದ್ಯಾಲಯದ ಕುಲಾಧಿಪತಿ, ಸಮಕುಲಾಧಿಪತಿ, ಕುಲಪತಿ,
We, the Chancellor, the Pro-Chancellor, the Vice-Chancellor,
 ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ತು ಮತ್ತು ಸಿಂಡಿಕೇಟ್ ಸದಸ್ಯರಾದ ನಾವು
the members of the Academic Council and the Syndicate

Certify that

KIRAN KUMAR S R

ಇವರು ಪರೀಕ್ಷಕರಿಂದ ಪರೀಕ್ಷಿಸಲ್ಪಟ್ಟು, ಪರೀಕ್ಷಕರ ಮಂಡಳಿಯ ಶಿಫಾರಸ್ಸಿನಂತೆ,
on the recommendation of the Board of Examiners, admitted to the degree of

Doctor of Philosophy
(Chemistry)

ಪದವಿಗೆ ಅರ್ಹರಾಗಿರುತ್ತಾರೆಂದು ಪ್ರಮಾಣೀಕೃತವಾಗಿರುವುದರಿಂದ
in recognition of the fulfilment of requirements
 ೩೦ನೇ ಘಟಿಕೋತ್ಸವದಲ್ಲಿ ಸದರಿ ಪದವಿಗೆ ಇವರನ್ನು ಅಂಗೀಕರಿಸಲಾಗಿದೆ.
for the said Degree at the THIRTIETH Convocation

ಅಧಿಸೂಚನೆ ದಿನಾಂಕ / Date of Notification : 12/06/2019

ಘಟಿಕೋತ್ಸವ ದಿನಾಂಕ / Date of Convocation : 29th July 2020

ವಿಶ್ವವಿದ್ಯಾಲಯದ ಮೊಹರಿನೊಂದಿಗೆ ನೀಡಲಾಗಿದೆ.

Given under the seal of the University.



Jnana Sahyadri, Shankaraghatta-577451
 Shivamogga District,
 Karnataka, India

Date of Issue : 29/07/2020

KUS



Jnana Sahyadri
 ಕುಲಪತಿ
 Vice-Chancellor



பாரதியார் பல்கலைக் கழகம் Bharathiar University

அறிவியல் புலம்

FACULTY OF SCIENCE

பாரதியார் பல்கலைக் கழகத்தால்

முறையாக

அமைக்கப்பட்ட

தேர்வாளர்

குழு.

ரேணுகா ச,

2018 ஆம் ஆண்டு, நவம்பர் 22 ஆம்

நாளில்

இயற்பியல்

என்னும்

பிரிவில்

ஆய்வியல் அறிஞர்

என்னும்

பட்டம்

பெறத்

தகுதியடைந்திருப்பதாகச்

சான்றளித்ததை

ஏற்று,

அவருக்கு

அந்தப்

பட்டத்தைப்

பல்கலைக்

கழக

இலச்சினையுடன்,

பாரதியார் பல்கலைக் கழக ஆட்சிக் குழு வழங்குகின்றது.

The Syndicate of the Bharathiar University hereby makes known that RENUKA C has been admitted to the Degree of DOCTOR OF PHILOSOPHY in PHYSICS, having been certified by duly appointed Examiners to be qualified to receive the same on 22nd NOVEMBER 2018.



கோயம்புத்தூர்

Coimbatore

419553463

நாள்

Given under the Seal of the University.

தேர்வாளையர்(பொ)

Dated: 18th December 2019 Controller of Examinations i/c

ISSUED ON - 3 OCT 2020



பதிவாளர்(பொ)

Registrar(i/c)

துணைவேந்தர்

Vice-Chancellor

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
KARNATAKA, INDIA



This is to certify that

VENKATARAMANA B S

has been conferred the Degree of

Doctor of Philosophy

in

FACULTY OF APPLIED SCIENCES (MATHEMATICS)

for the thesis entitled

STUDIES ON POWER EXPONENTIAL MEAN IN SEVERAL VARIABLE
AND ITS APPLICATIONS

*in recognition of the fulfillment of requirements
for the said degree*

PH
19 001822

Given under the seal of the University

USN: IJS15PGJ05



BELAGAVI

DATE : MARCH 10, 2022

VICE CHANCELLOR

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
KARNATAKA, INDIA



This is to certify that

MADHAVI. S

has been conferred the Degree of

Doctor of Philosophy

in

FACULTY OF APPLIED SCIENCES (PHYSICS)

for the thesis entitled

STUDY ON PHYSICAL, THERMAL, AND MECHANICAL PROPERTIES OF
BAMBOO POLYPROPYLENE COMPOSITE

*in recognition of the fulfillment of requirements
for the said degree*

PH
23 00119

Given under the seal of the University

USN: 1GA16PGJ02



BELAGAVI

DATE : FEBRUARY 24, 2023


VICE CHANCELLOR



ವಿಶ್ವವಿದ್ಯಾಲಯದ ಕುಲಾಧಿಪತಿ, ಸಮಕುಲಾಧಿಪತಿ, ಕುಲಪತಿ,
We, the Chancellor, the Pro-Chancellor, the Vice-Chancellor,
 ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ತು ಮತ್ತು ಸಿಂಡಿಕೇಟ್ ಸದಸ್ಯರಾದ ನಾವು
the members of the Academic Council and the Syndicate

Certify that
HARISHA S

ಇವರು ಪರೀಕ್ಷಕರಿಂದ ಪರೀಕ್ಷಿಸಲ್ಪಟ್ಟು, ಪರೀಕ್ಷಕರ ಮಂಡಳಿಯ ಶಿಫಾರಸ್ಸಿನಂತೆ,
on the recommendation of the Board of Examiners, admitted to the degree of

Doctor of Philosophy
(Chemistry)

ಪದವಿಗೆ ಅರ್ಹರಾಗಿರುತ್ತಾರೆಂದು ಪ್ರಮಾಣೀಕೃತವಾಗಿರುವುದರಿಂದ
in recognition of the fulfilment of requirements
 ಒಂನೇ ಘಟಿಕೋತ್ಸವದಲ್ಲಿ ಸದರಿ ಪದವಿಗೆ ಇವರನ್ನು ಅಂಗೀಕರಿಸಲಾಗಿದೆ.
for the said Degree at the THIRTIETH Convocation

ಅಧಿಸೂಚನೆ ದಿನಾಂಕ / Date of Notification : 27/04/2019

ಘಟಿಕೋತ್ಸವ ದಿನಾಂಕ / Date of Convocation : 29th July 2020

ವಿಶ್ವವಿದ್ಯಾಲಯದ ಮೊಹರಿನೊಂದಿಗೆ ನೀಡಲಾಗಿದೆ.

Given under the seal of the University.



Jnana Sahyadri, Shankaraghatta-577451
 Shivamogga District,
 Karnataka, India

Date of Issue : 29/07/2020

KUS



Off. Tanakadappa
 ಕುಲಪತಿ
 Vice-Chancellor

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
KARNATAKA, INDIA



This is to certify that

SHOBHA G

has been conferred the Degree of

Doctor of Philosophy

in

FACULTY OF APPLIED SCIENCES (BIO-TECHNOLOGY)

for the thesis entitled

RAPID BIOSYNTHESIS OF COPPER NANOPARTICLE AND THEIR
EFFECT ON AGRONOMICAL TRAITS OF LYCOPERSICON
ESCULENTUM

*in recognition of the fulfillment of requirements
for the said degree*

PH
19 000968

Given under the seal of the University

USN: 1MV13PGN04

BELAGAVI

DATE

: APRIL 03, 2021



VICE CHANCELLOR