#### REPUBLIC OF FRANCE

#### Ministry of Higher Education and Research

#### UNIVERSITE LE MANS

#### DOCTORATE (PhD)

In view of the education code, in particular its article L.612-7;

In view of the research code, in particular its article L.412-1;

In view of the decree no. 2002-481 of 8th April 2002 regarding university grades and titles and national diplomas;

In view of the order of 3rd September 1998 regarding the theses charter;

In view of the order of 7th August 2006 regarding doctoral training;

In view of the supporting documents produced by Mr. SHASHI KUMAR KUMARA SWAMY, born on 30th December 1984 at BANGALORE (INDIA), for doctorate registration;

In view of the Board's report attesting that the candidate has defended a thesis as on 18th February 2013 concerning the following subject: Solid state NMR of paramagnetic metal-organic and inorganic systems,

prepared in the MATTER, MOLECULES, MATERIALS in the region PAYS DE LOIRE, doctoral school, before a Board presided by ABDELHADI KASSIBA, UNIVERSITY PROFESSOR and made up of JENS DITTIMER, UNIVERSITY PROFESSOR, CHRISTOPHE LEGEIN, UNIVERSITY PROFESSOR, MALGORZATA MAKOWSKA-JANUSIK, UNIVERSITY PROFESSOR, PHILIPPE PELUPESSY, RESEARCH AND TRAINING ENGINEER, PAUL VASOS, UNIVERSITY PROFESSOR;

In view of the deliberations of the Board;

The NATIONAL DEGREE OF DOCTOR OF PHILOSOPHY IN PHYSICS

is issued to Mr. SHASHI KUMAR KUMARA SWAMY

And confers the grade of Doctor

to enjoy all the rights and privileges pertaining thereto

Place: Nantes

Date: 13 March 2013

Signature

Signature

Holder

President

Rachid EL GUERIOUMA

No. LEMANS 9245254

ALLIANCE
FRANCAISE DE
RANGALORE, INDIA

TRANSLATION
25/7/2016

Traduction certifiée conforme à l'original qui a été présenté

Signature and seal institute of Engg. & Technology, Rector of Academy MOODBIDR! - 574 225, D.K.

Chancelor of Universities

William MAROIS

### RÉPUBLIQUE FRANÇAISE

#### MINISTÈRE DE L'ENSEIGNEMENT SUPÉRIEUR ET DE LA RECHERCHE UNIVERSITE LE MANS

## DOCTORAT

Vu le code de l'éducation, notamment son article L.612-7;

Vu le code de la recherche, notamment son article L412-1:

Vu le décret a° 2002-481 du 8 avril 2002 modifié relatif aux grades et titres universitaires et aux diplômes nationaux;

Vu l'arrêté du 3 septembre 1998 relatif à la charte des thèses ;

Vu l'arrêté du 7 août 2006 relatif à la formation doctorale ;

Vu les pièces justificatives produites par M. SHASHI KUMAR KUMARA SWAMY, né le 30 décembre 1984 à BANGALORE (INDE), en vue de son inscription au doctorat ;

Vu le procès-verbal du jury attestant que l'intéressé a soutenu, le 18 février 2013 une thèse portant sur le sujet suivant : Solid state NMR of paramagnetic metal-organic and inorganic systems.

préparée au sein de l'école doctorale MATIERE, MOLECULES, MATERIAUX EN PAYS DE LOIRE, devant un jury présidé par ABDELHADI KASSIBA, PROFESSEUR DES UNIVERSITES et composé de JENS DITTMER, PROFESSEUR DES UNIVERSITES, CHRISTOPHE LEGEIN, PROFESSEUR DES UNIVERSITES, MALGORZATA MAKOWSKA-JANUSIK, PROFESSEUR DES UNIVERSITES, PHILIPPE PELUPESSY, INGENIEUR D'ETUDES DE RECHET FORMATION, PAUL VASOS, PROFESSEUR DES UNIVERSITES;

Vu la délibération du jury ;

LE DIPLÔME NATIONAL DE DOCTEUR EN PHYSIQUE

en delivre à M. SHASHI KUMAR KUMARA SWAMY

et confère le grade de docteur,

pour en jouir avec les droits et prérogatives qui y sont attachés.

H.O.D.

Le Recteur d'Academie,

celler des universités

Dept. Of Physics Alva's Institute of Engg. & Technology Mijar, MOODBIDRI - 574 225

Fuit à Nantes, le 13 mars 2013

Le titulaire

Le Président

Ĺ...

LEMANS 9245254

July -

Rachid FT. OUERIOUMA

William MAROIS

/201320120XXX

3/25/22, 3:13 PM JNANASHODHA



# ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

("ವಿ ಟ ಯು ಅಧಿನಿಯಮ ೧೯೯೪" ರ ಅಡಿಯಲ್ಲ ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಸ್ಥಾಪಿತವಾದ ರಾಜ್ಯ ವಿಶ್ವವಿದ್ಯಾಲಯ) "ಜ್ಞಾನ ಸಂಗಮ", ಬೆಳಗಾವಿ–೫೯೦೦೧೮, ಕರ್ನಾಟಕ, ಭಾರತ

### Visvesvaraya Technological University

(State University of Government of Karnataka Established as per the VTU Act, 1994) "Jnana Sangama" Belagavi-590018, Karnataka, India

RESEARCH SUPERVISOR / CO-SUPERVISOR DETAILS				
REGISTRATION ID	042021RSPY002296	RESEARCH SUPERVISOR / CO- SUPERVISOR NAME	SHASHI KUMAR K	
MOBILE Ph. No.	8971826021	EMAIL-ID	kushana007@gmail.com	
DEPARTMENT	PHYSICS			

#### RESEARCH SCHOLAR ALLOTMENT DETAILS

Candidate	Candidate	Guide	Research Center Name	Allotment
Name	Department	Type		Date
MUNIRAJA D K	PHYSICS	Supervisor	ALVA S INSTITUTE OF ENGINEERING AND TECHNOLOGY. MOODBIDRI	December 03, 2021
NAMRATHA	PHYSICS	Co-	ALVA S INSTITUTE OF ENGINEERING	December
JAIN S		Supervisor	AND TECHNOLOGY. MOODBIDRI	03, 2021

REGISTRAR

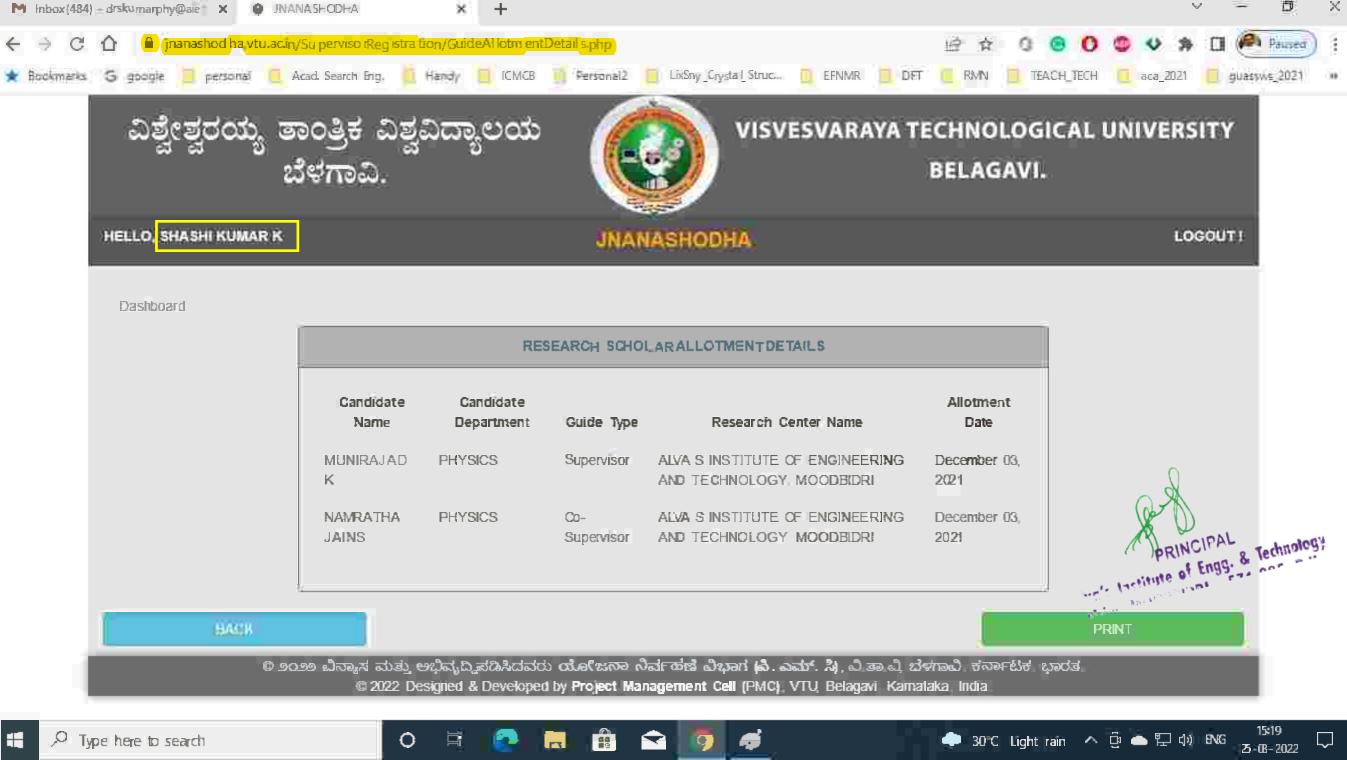
#### NOTE:

No signature required as this is system generated document.

© ೨೦೨೨ ವಿನ್ಯಾಸ ಮತ್ತು ಅಭಿವೃದ್ಧಿಪಡಿಸಿದವರು **ಯೋಜನಾ ನಿರ್ವಹಣೆ ವಿಭಾಗ (ಪಿ. ಎಮ್. ಸಿ)**, ವಿ.ತಾ.ವಿ, ಬೆಳಗಾವಿ. ಕರ್ನಾಟಕ. ಭಾರತ.

© 2022 Designed & Developed by Project Management Cell (PMC), VTU, Belagavi. Karnataka. India.

PRINCIPAL
Alve's Institute of Engg. & Technology,
Mijur. MOODBIDRI - 574 225, D.K





# ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ ("ವಿ ಟ ಯು ಅಧಿನಿಯಮ ೧೯೯೪" ರ ಅಡಿಯಲ್ಲ ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಸ್ಥಾಪಿತವಾದ ರಾಜ್ಯ ವಿಶ್ವವಿದ್ಯಾಲಯ)

"ವಿ ಟ ಯು ಅಧಿನಿಯಮ ೧೯೯೪" ರ ಅಡಿಯಲ್ಲ ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಸ್ಥಾಪಿತವಾದ ರಾಜ್ಯ ವಿಶ್ವವಿದ್ಯಾಲಯ) "ಜ್ಞಾನ ಸಂಗಮ". ಬೆಳಗಾವಿ–೫೯೦೦೧೮, ಕರ್ನಾಟಕ್ಕ, ಭಾರತ

# Visvesvaraya Technological University

(State University of Government of Karnataka Established as per the VTU Act, 1994) "Jnana Sangama" Belagavi-590018, Karnataka, India

Prof. A. S. Deshpande, B.E., M.Tech., Ph.D. REGISTRAR

Phone: (0831) 2498100 Fax: (0831) 2405467

VTU/BGM/Aca/Ph.D./2020-21/272

Date: 13-06-2022

To,

The Principal,

ALVA S INSTITUTE OF ENGINEERING AND TECHNOLOGY, MOODBIDRI

Sir / Madam,

Sub: Research Advisory Committee. reg...

Ref: 1. Your Submission Dated. 08-05-2022

2. Hon'ble Vice Chancellor's approval dated 08-06-2022.

This is to inform you that as per the reference to the subject cited above, the constitution of the Research Advisory Committee for MUNIRAJA D K (4AL20PPY01) who has registered for Ph.D. in this University, under the Guideship of SHASHI KUMAR K.

The following Research Advisory Committee has been approved by the University.

Sl.No.	Particulars		
1.	Name of the Candidate	MUNIRAJA D K	
2.	University Seat Number (USN)	4AL20PPY01	
3.	Research Programme & Category of Research Programme (Full Time/Part Time).	Ph.D PART TIME	
4.	Department in which the VTU recognized Research Center is established (Specialization).	PHYSICS	
5.	Name of the Research Center	ALVA S INSTITUTE OF ENGINEERING AND TECHNOLOGY. MOODBIDRI	
6.	Proposed Research Topic / Area.	Solid-state NMR studies of Organic Non-linear optical materials in combination with Density functional theory calculations for Optical limiting applications	

Sl.No.	Composition of Research Advisory Committee	Name and Designation	College/Organization, Address, Department, Specialization, E-mail & Mobile
1.	Principal/Director (Architecture)/ Chairperson of the University Department - Chairperson (or his/her Nominee)	PETER FERNANDES Principal	College/Organization: AL - ALVA S INSTITUTE OF ENGINEERING AND TECHNOLOGY. MOODBIDRI, Address: SHOBHAVANA CAMPUS, Department: MECHANICAL ENGINEERING, E-mail: principalaiet08@gmail.com, Mobile: 7026212555
2.	VC Nominee for the University Department /Head of the Department - Member	RAMAPRASAD AT Assc. Professor	College/Organization: AL - ALVA S INSTITUTE OF ENGINEERING AND TECHNOLOGY. MOODBIDRI, Address: ASSOCIATE PROFESSOR & HEAD DEPARTMENT OF ENGINEERING PHYSICS ALVAS INSTITUTE OF ENGINEERING AND TECHNOLOGY SHOBHAVANA CAMPUS MIJAR MOODBIDRI KARNATAKA 574225, Department: PHYSICS, E-mail: ramaprasadat@rediffmail.com, Mobile: 9449200658
3.	Domain Expert-1 (Internal) - Member	MAHESH LOHITH K S Assc. Professor	College/Organization: AD - ATME COLLEGE OF ENGINEERING MYSORE, Address: ATME COLLEGE OF ENGINEERING 13TH KM STONE MYSURU BANNUR ROAD NEAR MELLAHALLI CIRCLE MYSURU 570028, Department: PHYSICS, E-mail: maheshlohithks@gmail.com, Mobile: 9845206504
	Domain Expert-2 (External) - Member	DR MALLIKARJUNAIAH K J Assc. Professor	College/Organization: RAMAIAH UNIVERSITY OF APPLIED SCIENCE BANGALORE, Address: D144 DSMAX SIGNATURE LKR NAGAR BENGALURU 560094, Department: PHYSICS, E-mail: kjmarjun@gmail.com, Mobile: 9844205070
4.	Research Supervisor - Member Convener	SHASHI KUMAR K Assc. Professor	College/Organization: AL - ALVA S INSTITUTE OF ENGINEERING AND TECHNOLOGY. MOODBIDRI, Address: DR. SHASHI KUMAR KUMARA SWAMY SENIOR ASSISTANT PROFESSOR, DEPARTMENT OF ENGINEERING PHYSICS, ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, SHOBHAVANA CAMPUS, MIJAR, MOODABIDRI, MANGALORE, KARNATAKA STATE 574225, INDIA, Department: PHYSICS, E-mail: kushana007@gmail.com, Mobile: 8971826021

The above committee was constituted on **08-06-2022** and will abide by VTU Regulations 2020 and will be responsible for all further proceedings as per Ph.D. VTU Regulations 2020.

#### **Role of Research Advisory Committee**

- (a) The Research Advisory Committee shall be responsible to guide, review and monitor the progress of the Scholars pursuing the Research program starting from the commencement of the program until the submission of the Thesis.
- (b) The Research Advisory Committee shall meet as often as required, but at least once every six months to oversee the progress of the Scholar for evaluation and further guidance. The half-yearly progress reports shall be uploaded to https://jnanashodha.vtu.ac.in by the Research Advisory Committee.
- (c) The Research Advisory Committee shall assess the performance of the Scholar and declare the same to be

satisfactory or unsatisfactory.

- (d) In case the progress of the Research Scholar is not satisfactory, the Research Advisory Committee shall record the reasons for the same and suggest corrective measures. If the research Scholar fails to implement these corrective measures, the Research Advisory Committee may recommend specific reasons for the cancellation of the registration of the Research Scholar.
- (e) The Research Advisory Committee shall forward its recommendations to the Registrar, regarding the cancellation of the registration of the Research Scholar, the change of Research Supervisor/Co-Supervisor, use of other Research Center, change in Research area and topic, and other matters related with the Research Programme. [A copy of the same be marked to the Registrar (Evaluation)].
- (f) The Registrar, shall arrange to place the recommendations of the Research Advisory Committee before the Admissions Committee for its approval.

This is for your information.

Thanking you,

Registrar

Copy to,

1. Research Supervisor: SHASHI KUMAR K

2. Research Scholar: MUNIRAJA D K.

3. Office copy.

Document Generated Date: 2022-07-06 & Time: 16:29:33, Web portal: https://jnanashodha.vtu.ac.in



ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ ("ವಿ ಟ ಯು ಅಧಿನಿಯಮ ೧೯೯೪" ರ ಅಡಿಯಲ್ಲ ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಸ್ಥಾಪಿತವಾದ ರಾಜ್ಯ ವಿಶ್ವವಿದ್ಯಾಲಯ) "ಜ್ಞಾನ ಸಂಗಮ", ಬೆಳಗಾವಿ–೫೯೦೦೧೮, ಕರ್ನಾಟಕ್, ಭಾರತ

# Visvesvaraya Technological University

(State University of Government of Karnataka Established as per the VTU Act, 1994) "Jnana Sangama" Belagavi-590018, Karnataka, India

Prof. A. S. Deshpande, B.E., M.Tech., Ph.D. REGISTRAR

Phone: (0831) 2498100 Fax: (0831) 2405467

VTU/BGM/Aca/Ph.D./2020-21/272

Date: 13-06-2022

To,

The Principal,

ALVA S INSTITUTE OF ENGINEERING AND TECHNOLOGY. MOODBIDRI

Sir / Madam,

Sub: Research Advisory Committee. reg...

Ref: 1. Your Submission Dated. 08-05-2022

2. Hon'ble Vice Chancellor's approval dated 08-06-2022.

This is to inform you that as per the reference to the subject cited above, the constitution of the Research Advisory Committee for NAMRATHA JAIN S (4AL20PPY02) who has registered for Ph.D. in this University, under the Guideship of RAMAPRASAD AT.

The following Research Advisory Committee has been approved by the University.

Sl.No.	Particulars		
1.	Name of the Candidate	NAMRATHA JAIN S	
2.	University Seat Number (USN)	4AL20PPY02	
3.	(run inne/ran inne).	Ph.D PART TIME	
4.	Department in which the VTU recognized Research Center is established (Specialization).	PHYSICS	
5.		ALVA S INSTITUTE OF ENGINEERING AND TECHNOLOGY. MOODBIDRI	
6.		Experimental studies and Density Functional Theory calculations of conducting polymer	

Sl.No.	Composition of Research Advisory Committee	Name and Designation	College/Organization, Address, Department, Specialization, E-mail & Mobile
1.	Principal/Director (Architecture)/ Chairperson of the University Department - Chairperson (or his/her Nominee)	PETER FERNANDES Principal	College/Organization: AL - ALVA S INSTITUTE OF ENGINEERING AND TECHNOLOGY. MOODBIDRI, Address: SHOBHAVANA CAMPUS, Department: MECHANICAL ENGINEERING, E-mail: principalaiet08@gmail.com, Mobile: 7026212555
2.	VC Nominee for the University Department /Head of the Department - Member	DR. M. KISHORE SHETTY Assc. Professor	College/Organization: JK - A.J. INSTITUTE OF ENGINEERING AND TECHNOLOGY MANGALURU, Address: A J INSTITUTE OF ENGINEERING AND TECHNOLOGY MANGALURU 575006, Department: CHEMISTRY, E-mail: kishore8shetty@gmail.com, Mobile: 9972527977
3.	Domain Expert-1 (Internal) - Member	MAHESH LOHITH K S Assc. Professor	College/Organization: AD - ATME COLLEGE OF ENGINEERING MYSORE, Address: ATME COLLEGE OF ENGINEERING 13TH KM STONE MYSURU BANNUR ROAD NEAR MELLAHALLI CIRCLE MYSURU 570028, Department: PHYSICS, E-mail: maheshlohithks@gmail.com, Mobile: 9845206504
	Domain Expert-2 (External) - Member	GURUMURTHY S C Assc. Professor	College/Organization: MANIPAL INSTITUTE OF TECHNOLOGY MANIPAL ACADEMY OF HIGHER EDUCATION, Address: DR. GURUMURTHY S C ASSISTANT PROFESSOR SELECTION GRADE DEPARTMENT OF PHYSICS MANIPAL I, Department: PHYSICS, E-mail: gurumurthy.s.c@gmail.com, Mobile: 9449740014
4.	Research Supervisor - Member Convener	RAMAPRASAD AT Assc. Professor	College/Organization: AL - ALVA S INSTITUTE OF ENGINEERING AND TECHNOLOGY. MOODBIDRI, Address: ASSOCIATE PROFESSOR & HEAD DEPARTMENT OF ENGINEERING PHYSICS ALVAS INSTITUTE OF ENGINEERING AND TECHNOLOGY SHOBHAVANA CAMPUS MIJAR MOODBIDRI KARNATAKA 574225, Department: PHYSICS, E-mail: ramaprasadat@rediffmail.com, Mobile: 9449200658
5.	Co-Supervisor - Joint Member Convener	SHASHI KUMAR K Assc. Professor	College/Organization: AL - ALVAS INSTITUTE OF ENGINEERING AND TECHNOLOGY MOODBIDRI, Address: DR. SHASHI KUMAR KUMARA SWAMY SENIOR ASSISTANT PROFESSOR, DEPARTMENT OF ENGINEERING PHYSICS, ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, SHOBHAVANA CAMPUS, MIJAR, MOODABIDRI, MANGALORE, KARNATAKA STATE 574225, INDIA, Department: PHYSICS, E-mail: kushana007@gmail.com, Mobile: 8971826021

The above committee was constituted on  $\bf 08-06-2022$  and will abide by VTU Regulations 2020 and will be responsible for all further proceedings as per Ph.D. VTU Regulations 2020.

### **Role of Research Advisory Committee**

- (a) The Research Advisory Committee shall be responsible to guide, review and monitor the progress of the Scholars pursuing the Research program starting from the commencement of the program until the submission of the Thesis.
- (b) The Research Advisory Committee shall meet as often as required, but at least once every six months to oversee the progress of the Scholar for evaluation and further guidance. The half-yearly progress reports shall be uploaded to https://jnanashodha.vtu.ac.in by the Research Advisory Committee.
- (c) The Research Advisory Committee shall assess the performance of the Scholar and declare the same to be satisfactory or unsatisfactory.
- (d) In case the progress of the Research Scholar is not satisfactory, the Research Advisory Committee shall record the reasons for the same and suggest corrective measures. If the research Scholar fails to implement these corrective measures, the Research Advisory Committee may recommend specific reasons for the cancellation of the registration of the Research Scholar.
- (e) The Research Advisory Committee shall forward its recommendations to the Registrar, regarding the cancellation of the registration of the Research Scholar, the change of Research Supervisor/Co-Supervisor, use of other Research Center, change in Research area and topic, and other matters related with the Research Programme. [A copy of the same be marked to the Registrar (Evaluation)].
- (f) The Registrar, shall arrange to place the recommendations of the Research Advisory Committee before the Admissions Committee for its approval.

This is for your information.

Thanking you,

Registrar

Copy to,

1. Research Supervisor: RAMAPRASAD AT

2. Research Co-Supervisor:SHASHI KUMAR K

3. Research Scholar: NAMRATHA JAIN S.

4. Office copy.

Document Generated Date: 2022-08-03 & Time: 12:44:11, Web portal: https://jnanashodha.vtu.ac.in