To,

The coordinator,

RGSTC Scheme,

Dr. Babasaheb Ambedkar Technological University,

Vidyavihar, Lonere

Subject: Submission of Project-Pre-Proposal.

Respected Sir,

I am submitting herewith my Project-Pre-Proposal entitled, "Novel herbal composition and method to improve milk production, fat, lactation period and reproductive health in cattle." under the RGSTC's University Scheme. I hope that the Proposal is up to the expectation of the RGSTC's University Scheme. Kindly acknowledge the receipt. An early and favorable decision of the same is solicited.

Thanking you.

Yours faithfully,

Dr. Vishal S. Patil

Asst. Prof.

SETI, Panhala

Dean

Research & Development

SETI, Panhala

1/2 Principal

SETI, Panhala PRINCIPAL

Sanjeevan Engg. & Tech. Institute Somwar Peth, Panhala - 416 201



- 1) Title of the project proposal: Novel herbal composition and method to improve milk production, fat, lactation period and reproductive health in cattle.
- 2) Name of the Institution where the work will be carried out: Department of Basic Sciences and Humanities, Sanjeevan Engineering and Technology Institute Panhala, Dist-Kolhapur, Maharashtra 416201

# 3) Name of the investigator:

- 3.1) Name Dr. Vishal S. Patil
- 3.2) Department -Basic Sciences and Humanities
- 3.3) Designation Assistant Professor
- 3.4) Organization and Institute name -Sanjeevan Engineering and Technology Institute, Somwar Peth, Panhala
- 3.5) Address: Sanjeevan Engineering and Technology Institute, Somwar Peth, Panhala, Dist-Kolhapur, Maharashtra 416201

E-Mail: vishalpatil.chem@gmail.com Contact no.- 9049439898

### 4) Name of the co-investigator:

- 4.1) Name Dr. Dhanshri V. Patil
- 4.2) Department Chemistry
- 4.3) Designation Assistant Professor
- 4.4) Organization and Institute name KrishnaMahavidyalaya Rethare Bk.
- 4.5) Address:Krishna Mahavidyalaya Rethare Bk.Tal-Karad, Dist- Satara, Maharashtra 415108E-Mail: <a href="mailto:dtp:phy@gmail.com">dtp:phy@gmail.com</a>

## 5) Objective of the project:

- To provide a novel herbal composition for enhancing milk production, fat and lactation period in cattle.
- ii) To maintain normal duration of an estrous cycle and helps cattle to conceive in time.
- iii) To develop a commercially viable composition to boost dairy farming in India.
- iv) To tackle the dairy farming problem for the betterment of mankind.

R.S. No. 199B/1-3, Gokul Shirgaon, Kolhapur - 416 234.

Maharashtra, INDIA.

Tel. +91 7769001199, 9168781199

Email: info@kitcoek.in Web: www.kitcoek.in

Ref.: KIT/CEK/ No 0 207 6



Accredited 'A' Grade by NAAC, Bengaluru

Date: 27/12/2022

2 7 DEC 2022

To.

The Registrar,

Shivaji University, Kolhapur

Subject: Regarding Research Proposal under Diamond Jubilee Research Initiation Scheme

Dear Sir,

Dr. Udaysinh Shivaji Bhapkar, Professor, Department of Mechanical Engineering, Kolhapur Institute of Technology's College of Engineering (Autonomous), Kolhapur is submitting research proposal entitled "Chemical synthesis of SnO<sub>2</sub>-Polymer nanocomposites for coating and study of anticorrosive properties of coated steel." for the Diamond Jubilee Research Initiation Scheme.

You are requested to accept the proposal

Regards,

Dr. Mohan B. Vanarotti

Director

Kolhapur Institute of Technology's College of Engineering (Autonomous), Kolhapur

College of Engineering (Autonomous)

Kolhapur Inetitute of Technology's
College of Engineering (Autonomous)

Kolhapur



#### A Research Project Proposal

Under

# Diamond Jubilee Research Initiation scheme Shivaji University, Kolhapur

#### Entitled

Chemical synthesis of SnO<sub>2</sub>-Polymer nanocomposites for coating and study of anticorrosive properties of coated steel.

Submitted by

Dr. UDAYSINH SHIVAJI BHAPKAR

Department of Mechanical Engineering

Kolhapur Institute of Technology's

College of Engineering (Autonomous), Kolhapur-416234 (MS)

December 2022

# SHIVAJI UNIVERSITY, KOLHAPUR DIAMOND JUBILEE RESEARCH INITIATION SCHEME

#### Format for Submission of Proposal for Research Project

#### PART-I

1) Broad Subject: Material Science Faculty: Mr. Dhananjay Vasantrao Patil

2) Area of Specialization: Anticorrosive Coating

3) Duration: 36 months4) Principal Investigator:

i)	Name	Dr. U.S.Bhapkar
ii)	Sex	Male
iii)	Date of Birth	05/03/1977
iv)	Qualification	Ph.D. Mechanical Engineering Thermal and Fluids Engineering
v)	Designation	Professor
vi)	Address Office: Residence:	KIT's College of Engineering, (Autonomous) Kolhapur.
vii)	Date of joining the service as a teacher	01/07/2004
viii)	Date of confirmation	01/07/2004

#### 5) Co-Investigator(s) (If any):

i) Name		Mr. Dhananjay Vasantrao Patil		
ii)	Sex	Male		
iii)	Date of Birth	09/10/1986		
iv)	Qualification	M.E. Mechanical Engg.		
v)	Designation	Assistant Professor		
vi)	Address Office:	Sanjeevan Engineering and Technolo Institute, Panhala.		
	Residence:	At/p.Vadanage, Tal. Karveer, Dist.Kolhapur. 416229.		

#### 1) Co-Investigator(s) (If any):

i) Name		Dr. S.S. Potdar		
ii)	Sex	Male		
iii) Date of Birth		20/12/1982		

	(PVA or polyurethane) nanocomposite.			
4	Study of structural and morphological properties.			
<b>A</b>	Test its performance in different medium for corrosion protection by Tafel polarization and EIS.			
>	Synthesis of SnO <sub>2</sub> - second Polymer (PMMA or PVC) nanocomposite.			
>	Study of structural and morphological properties.			
>	Test its performance in different medium for corrosion protection by Tafel polarization and EIS.			
>	Comparing and finding optimum corrosion coating thickness of Polymer-SnO <sub>2</sub> ,			
4	Project report writing and submission.			THE PERMIT

# vi) Details of collaboration, if any intended

# 9) Financial Assistance required

Item	Estimated Expenditure
A) Non-recurring component *: (upto 70% of the project cost)	
<ul> <li>i) Equipment which may include Characterization like XRD, SEM, TEM, UV-Visible, EDAX,FTIR etc., Experimental Setup etc., laptop</li> </ul>	1,75,000/-
ii) Books/Journals	30000/-
B) Recurring component:	
(i) Hiring Services	
(ii) Field Work and Travel	50,000/-
(iii) Chemicals and glassware	50,000/-
(iv) Contingency (including special needs)	20,000/-
tal (Rs.)	3,25,000/-

\*Justification for the purchase of the equipment be provided.

10) (a) Details of the project/scheme completed or on going with the P.I

Name of the Equipment	Year	Total Infrastructural facilities obtained	Agency	Started	Completed

(b) Institutional and Departmental facilities available for the proposed work

> Equipment: Magnetic stirrer with hot plate, muffle furnace, digital weight balance, digital pH meter, chemical hot bath.

11) Any other information which the investigator may like to give in support of this proposal which may be helpful in evaluating.

#### To certify that:

- a) General physical facilities, such as furniture/space etc., are available in the College / Institution.
- b) I/we shall abide by the rules governing the scheme in case assistance is provided to me/us from the University for the above project.
- c) I/we shall complete the project within the stipulated period. If I/we fail to do so and if the University is not satisfied with the progress of the research project, the University may terminate the project immediately and ask for the refund of the amount received by me/us.
- d) The above Research Project is not funded by any other agency.

Name and Signature

Dr. U.S. Bhaplar () BS (a) Principal Investigator

> O ME. Dhananjay V. Patil, @ Dr. S.S. Potdaz, Xuge

(b) Co-Investigator

(c) Principal/Head of the University Department (Signature with Seal)

Diseasor " Kolhapur Inetitute of Technology's College of Engineering (Autonomous) Kolhapur