

## Curriculum Vitae

### **Dr. BHARATI S. METI**

**Professor & Head Dept of Biotechnology**  
**Executive Director Basaveshwar Engg College- Science & Technology Entrepreneurs Park (BEC-STEP)**  
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### **Education**

<b>Degree</b>	<b>University/ Institute</b>	<b>Year of Award</b>	<b>Thsis</b>
<b>Ph.D</b>	Gulbarga University, Gulbarga	2005	Propagation, phytochemical studies and conservation of <i>Dioscorea</i> species of Kumarswami hills, Sandur
<b>M.Phil</b>	Gulbarga niversity, Gulbarga	1997	Effect of VA Mycorrhizae on tissue cultured sugarcane seedlings
<b>M. Sc</b>	Gulbarga niversity, Gulbarga	1996	Botany

### **Professional Positions Additional Responsibilities**

<b>Date into Service</b>	<b>Designation</b>	<b>Organisationzation</b>	<b>Responsibility</b>
01.09.2011 till Date	Professor & Head	Department of Biotechnology Basaveshwar Engineering College (BEC) Bagalkot	UG-PG teaching, R&D and Administration
01.08.2006 to 31.08.2011	Asst. Professor	Dept. of Biotechnology, BEC, Bagalkot	UG teaching
19.09.2003 to 31 .07.2006	Lecturer	Dept of Biotechnology, BEC, Bagalkot	UG teaching & Establishment of the dept.
20.06.2001 to 18.09.2003	Lecturer	Dept. of Botany, Basaveshwar Science College, Bagalkot	PUC & B.Sc teaching

<b>Period</b>	<b>Designation</b>	<b>Program</b>	<b>Responsibilities</b>
March 2012 -till date	Co ordinator	Bagalkot District Bioenergy Research, Information & Demonstration Center, BEC, Bagalkot	Awareness/Training/Entrepreneurs development/production of biofuels & research
August 2016-till date	Co ordinator	B Voc programme in Food processing (Horticulture)	To run the B Voc degree course at BEC campus sanctioned from Central University, Kadaganchi (CUK), Karnataka
2010-12	Deputy Chief, Valuation Center	Autonomous Examination section, BEC , Bagalkot	Coordinating the Central valuation work
2013-2017	Deputy Chief, Proof reading & printing section	Autonomous Examination Section, BEC, Bagalkot	Coordinating the Question paper proof reading & printing work confidentially

### Grants received

1. Rs. 10.4 lakhs worth infrastructure for establishment of Bioenergy Research, Information & Demonstration Center (BRIDC) for Bagalkot District from Karnataka State Bioenergy Development Board (KSBDB), Karnataka State Govt, Bengaluru (2011-12)
2. Rs. 2.5 lakhs seed money to purchase Biodiesel seeds for Bioenergy activity from KSBDB, Bengaluru (2011,12 & 17)
3. Rs. 25.4 lakhs grant for BRIDC activities to conduct awareness/training/machinery maintenance/research activities through Bagalkot district from KSBDB, Bengaluru (2011-till date, project continued)
4. Rs. 0.055 lakhs for UG project “Production and optimization of Bio-diesel from algae *Scenedesmus dimorphus*” from Karnataka State Council for Science and Technology (KSCST), IISc. Bangalore (2009-10) (Ref No-33S0672)
5. Rs. 0.055 lakhs grant for UG project “Creating a data base for molecular and morphological diversity of pomegranate” Karnataka State Council for Science and Technology (KSCST), IISc. Bangalore (2009-10) (Ref No-33S0673).
6. Rs. 0.05 lakhs grant for UG Project “Solid state fermentation of Agrowaste for industrial lipase production” from Karnataka State Council for Science and Technology (KSCST), IISc. Bangalore (2010-11) (Ref No-34S0241).

7. Rs. 0.08 lakhs grant for UG project “Characterization and optimization of microalgae for Bio-diesel production” from Karnataka State Council for Science and Technology (KSCST), IISc. Bangalore (2011-12) (Ref No-35SB010).
8. Rs. 0.07 lakhs grant for UG project “Biobutanol Production from lignocellulosic material” from Karnataka State Council for Science and Technology (KSCST), IISc. Bangalore (2013-14) (Date: 08.04.2013)
9. Rs. 0.185 lakhs grant for PG project “Treatment of sugar processing waste water and biogas production using algal biomass” from Karnataka State Council for Science and Technology (KSCST) (KSBDB), IISc. Bangalore (2013-14).
10. Rs. 0.25 lakhs grant for PG project “Molecular characterization of *Pseudomonas fluorescens* with bacterial blight affected pomegranate” from TEQIP-II, BEC, Bagalkot (2013-14).
11. Rs. 0.20 lakhs grant for PG project “Cellulosic conversion to bioethanol from pongamia Pod-A Bio-diesel industry waste” from TEQIP, BEC, Bagalkot (2014-15).
12. Rs. 0.13 lakhs grant for PG project “Morphological physicochemical –chemical and genetic variations in Biofuel tree *Pongamia pinnata* at Bagalkot District” from TEQIP, BEC, Bagalkot (2014-15).
13. Rs 16.2 lakhs grant to start Biotechnology Skill Enhancement Programme (BiSEP), a PG diploma course in “Food processing & nutraceuticals” from KBITs, Bengaluru (sanctioned in 2017-18)
14. Rs 10 lakhs sanctioned from Entrepreneurs Development Institute (EDI), Ahmadabad to conduct Entrepreneurship Awareness Camp (EAC), EDP, TEDP & FDP (2016-17)

## Research and Development

### Ph. D/M.Sc Engg. by research thesis guiding

1. Studies on Biomass, lipid enhancement and molecular characterization of *Chlorella* species for biofuel production.
2. Design and development of a sensor for real time monitoring of transesterification progress in reaction chamber for biodiesel production.
3. Production and optimization of biodiesel using seed oils (as a co guide).
4. Study on the production of ethanol from cellulosic material by biochemical process.
5. Evaluation of human gut isolates as potential probiotics
6. Bioformulations for enhanced resistance against bacterial blight of pomegranate

7. Biofilm induced changes in reduction of Hexavalent Chromium by indigenous microbes (as a co guide)
8. Adsorption of heavy metal ions using synthesized nanomaterial
9. Genetic variability, Biochemical and Morphological divergence study of *Pongamia pinnata* seeds in Bagalkot District-**M.Sc Engg by research( submitted)**

### Patents (Submitted) : 03

1. Application number- 201641042251; Applicant name Dr Bharati S Meti & Shivaleela V B; Date of filing-10/12/2016; Title of invention- Cookie mix for special need; Date of publication-23/12/2016; Application status-awaiting for examination.
2. Ref. No 201741034621; Application number-TEMP/E-1/35367/2017 CHE; Applicant name Dr Bharati S Meti & Shivaleela V B; Date of filing-28/09/2017; Title of invention- Soap preparation using organic waste for animal use to remove body pests like ticks. Application status-awaiting for publication.
3. Ref. No 201741034620; Application number-TEMP/E-1/35363/2017 CHE; Applicant name Dr Shivaleela V B & Bharati S Meti; Date of filing-28/09/2017; Title of invention – Process of purification of glycerine. Application status-awaiting for publication.

### International Journals publications

1. Anurag Bellankimath, Ajay Katti, V B Hemalata & Bharati S Meti “Isolation and Characterization of the Indigenous acetic acid bacteria from western ghats soil samples” *In.t J. Curr. Microbiol. App.Sci* ISSN: 2319-7706 vol6(9) (2017)
2. Vikas C. Ghattargi, Yogesh Nimonkar, Shaunak Burse, Dimple Davray, Shreyaskumbhare, Meghna Gaikwad, Mangesh Suryavanshi, Swapnil Doijad, Bhimashankar Utage, Om Sharma, Yogesh Shouche, **Bharati S. Meti** “Genomic and Functional Analyses of an Indigenous Strain, *Enterococcus faecium* 17OM39” has been submitted to *Functional and Integrative Genomics*.
3. Vikas C. Ghattargi, Meghna A. Gaikwad, Dhiraj Dhotre, Yogesh Nimonkar, Om Prakash Sharma, Yogesh S. Shouche, Shrikant Pawar, **Bharati S. Meti**. “Comparative Genomics Uncovers the Intrinsic Probiotic Potential of Indigenous Strain, *Enterococcus faecium* 17OM39” (in process).
4. Vikas C. Ghattargi, Mangesh V. Suryavanshi, Swapnil Kalam, Yogesh S Shouche, **Bharati S. Meti** “Mining the White-Gold” has been submitted to *Current Science*.
5. Krishnamurthy Bhat, **Bharati S. Meti** & K. Chandrasekhar “Consolidation of available methods and design of a reliable physicochemical system for transesterification progress

monitoring in biodiesel reaction chamber”, *International Research Journal of Engineering and Technology*. Vol.03 issue 06, (2016) PP:2334-2338

6. Krishnamurthy Bhat, **Bharati S. Meti** & K. Chandrasekhar “Automation technique for online transesterification process in India” *International Journal of Biotechnology and research*. Vol 6(1) (2016),PP :13-18
7. Yashaswi R Metri & **Bharati S. Meti** “Cellulosic Conversion to Bioethanol from Pongamia Pod- A Biodiesel Industry Waste” *International Journal of Modern Engineering Research (IJMER)*, ISSN 2249-6645, Vol.5(9), (2015) PP:69-74.
8. **Bharati S. Meti** & Shailaja B “Treatment of Sugar Process Wastewater & Biogas Production using algal biomass” *International Journal of Engineering Research & Technology(IJERT)* ISSN 2278:0181, Vol.3(9), (2014) PP:61-67.
9. Premjyothi C Patil & **Bharati S. Meti** “A Brief Review on Algal Lipid” *International Journal of Research Studies in Biosciences (IJRSB)* ISSN 2349-0357, Vol.2 (2014), PP:55-61.

### International conference presentations

1. Vikas C Ghattargi, GaikwadMeghna A, DhotreDhiraj, NimonkarYogesh, Sharma Om Prakash, ShoucheYogesh S, PawarShrikant, **Bharati S. Meti**, Presented a poster “Comparative Genomics of *Enterococcus faecium*” at Federation of European Microbiological Societies (FEMS), Valencia Spain (July, 2017)
2. Vikas C Ghattargi, Gaikwad Meghna A ,Matharu Dollwin, Pandit Sumeet,Davaray Dimple, Shouche Yogesh S, **Bharati S. Meti**, Pawar Shrikant & Dhotre Dhiraj Presented a poster at Federation of European Microbiological Societies (FEMS) congress conference on “Genomic Investigation of Probiotic and Non-probiotic Species” at Valencia Spain (July, 2017)
3. Premjyoti Patil & **Bharati S. Meti** “Microalgae the source of bioenergy” paper presentation in the international conference on recent trends in agriculture, biotechnology and food processing held at Agriculture college, Hassan, India from 5<sup>th</sup> to 7<sup>th</sup> July 2017
4. **Bharati S. Meti** “Mycorrhizal effect on tissue culture seedlings” a paper presentation in the International Symposium on ‘Acclimatization & Establishment of Micropropagated Plants’ on 12<sup>th</sup> to 15<sup>th</sup> Sept, 2007 at Fero, Portugal

### National conference presentations

1. Pavan Kumar, V. Lokesh, G. Manjunath & Bharati S Meti “ Efficacy of Bacillus subtilis based bioformulation against Bacterial Blight of Pomegranate” at *National symposium of IPS (SZ) on “Emerging trends in plant health Management in Relation to Climate*

Change”, 12-13<sup>th</sup> Sept, 2017, Dept. of Pathology, College of Horticulture, UHS, GKVK Post, Bengaluru.

2. Sushma Hallad, Yashaswi R Metri & **Bharati S. Meti** “Isolation of Cellulose Degrading Microbes From Western Ghats of Karnataka” in Proceedings of Recent Trends in Environmental Waste Management (RTEWM) at Haveri (2015).

### **Visits Abroad**

Faro, Portugal during Sept 2007 to present the research paper in the international conference

### **Research area Information:**

**PhD Thesis** : Propagation, phytochemical studies and conservation of *Dioscorea* species  
Kumarswa Hills, Sandur

Institute of Research: Department of Botany, Gulbarga University, Gulbarga

Summary : Three species of *Dioscorea* which are Medicinal plants collected from Kumarswamy hills are selected for The research work. Since they are regionally vulnerable plants , their conservation aspects -both *in vitro* (Plant tissue culture) & *in vivo* are studied. These species are locally used and there was no scientific study reported , its phytochemical - primary & secondary metabolites are analysed, pharmacological studies- analgesic, convulsant, inflammatory & antimicrobial studies are carried out.

M. Phil Thesis: **Effect of VA Mycorrhizae on tissue cultured sugar cane seedlings**

Period of Research: 1996 to 1997

Year of Award: 1997

Institute : Department of Botany, Gulbarga University, Gulbarga

Summary : Mycorrhizae a root infecting fungi is known for uptake of nutrients from soil and its effect is studied on tissue culture sugarcane shoots. Root induction without rooting hormone is studied using both VAM spores and VAM infected root extract. And its acclimatization studies are carried out.

**Biofuels Research** : Biodiesel production process- using seeds, UCO etc, utilization of byproducts- crude glycerine & deoiled cake; Cellulosic conversion using microorganisms; Biomass briquetting using agriculture waste or any biomass waste ; Biogas production, value addition of biofuel derivatives

**Food Process research:** Fruits & vegetable processing; cereal & bakery processing ; value addition to the foods;