

**Aquitaine –Karnataka collaboration  
Scientific Project for Pre-PhD student exchange**

**Scientific Proposal**

Project Title	<b>Optimization of Bio-oil production from glycerol using <i>Cryptococcus heveanensis</i></b>	
Scientific domain	Bioprocess Engineering	
Summary (ca. 10 lines)	<p>Increase in Biodiesel production has resulted in glut of glycerol, which is a by-product of Biodiesel industry. A small fraction of glycerol will find its use in pharmaceutical and cosmetic industry and remaining will be a major problem as far as disposal is concerned. Therefore, the surplus glycerol could be utilized for the production of other value added products of industrial importance. Conversion of surplus glycerol of biodiesel industry into value added product will cut down the cost of Biodiesel production and enhances the economic viability of Biodiesel industry. One of the value added products is bio-oil from glycerol, which could be reutilized for the production of Biodiesel or other pharmaceutically important products like <math>\omega</math>3-fatty acids. Bio-oil from glycerol will be produced using <i>Cryptococcus heveanensis</i> isolated in this lab. Optimization of bio-oil production will be undertaken using various parameters by applying response surface methodology (RSM) and OFAT (one factor at a time) analysis approach.</p>	
Student profile wished	Chemical Engineering or Biotechnology background	
Supervisor Name	Dr. C.Vaman Rao	
Supervisor @ & phone	919880675650	Tel: 918258281263/64
Institute/laboratory/industry (full address)	NMAM Institute of Technology Dept. of Biotechnology Engineering Nitte-574110 (Udupi Dist.) Karnataka State	
Director Name Institute/laboratory/industry	Dr. C. Vaman Rao	
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Timing & duration for project (give approximate ranges)	Around 6 months at any time	
Representative References		

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