

## BIO-DATA OF PROFESSOR SUKUMAR LAIK

**1. Name:** : **Prof. Sukumar Laik**  
**2. Address:** : Head, Department of Petroleum Engineering  
Indian School of Mines, Dhanbad – 826004, INDIA.  
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**3. Date of birth:** 8th day of March, 1952

**4. Whether belongs to**

**SC/ST:** No

### **5. Academic Qualifications:**

University/Institute	Degree	Year	Specialization	Class
Indian School of Mines, Dhanbad India	B.Tech	1973	Petroleum Engineering	I (Honours)
Indian School of Mines, Dhanbad India	M.Tech	1981	Petroleum Engineering	By research
Indian School of Mines, Dhanbad India	Ph.D.	1995	Petroleum Engineering	Title of thesis: Simulation of Massive Hydraulic Fracturing Process in Indian Gas Field
The Institution of Engineers (I)	Sec-B, Mech. Engg (Equiv. B.Tech.)	1985	Mechanical Engineering	---

### **6. Professional Career:**

1974-1977 Pipeline Engineer DODSAL Pvt. Ltd. & DODSAL GmbH.  
1977-1980 Lecturer Indian School of Mines  
1980-1981 Assistant Professor Indian School of Mines  
1981-1983 Visiting Lecturer Federal Univ. of Technology, Owerri, Nigeria  
1983-1995 Assistant Professor Indian School of Mines  
1995-onwards Professor Indian School of Mines

## **7. Award/Prize/Certificate etc. won by the Investigator:**

Certificate of Merit was awarded on the following papers paper by the Institution of Engineers(I):

1. **Laik S.**, Pathak C. K. and Sharma V. P., “Effects of Pour Point Depressants on Waxy Indian Crude Oil” JL. of Inst of Engrs.(I), Vol 69, pt. CH-2, Feb. 1989, pp. 60-63.
2. **Laik S.**, “Borehole Simulator for Prediction of Wellbore Stresses” JL. of Inst. of Engr.(I), MN, Vol. 76, Nov. 1995, pp. 39-43.

## **F. List of Projects taken up:**

### **a) Details of Research Projects completed:**

Name & Institute: Indian School of Mines, Dhanbad  
Project Title: “Enhancement of Recovery of Oil by Alcohol Flooding studies”  
Project Status: Completed  
Duration/period: From Aug. 1996 to Aug. 1999.  
Funding agency: AICTE, New Delhi  
Total cost: Rs.3,50,000

### *Summary of the project:*

These two prong studies were carried out:

1) *Displacement studies:* LCA (Long Core Apparatus costing Rs.34 lakhs) only of its kind in India was used with oilfield core samples and crude oil samples. Alcohols (isopropyl and tertiary butyl) were used for the purpose of displacements. Total five experiments were carried out . The results were very much encouraging and the final recommendation that was given to suit the particular reservoir condition of the given oil field was in favor of isopropyl alcohol.

2) *Miscibility studies:* These studies were carried out using distilled crude oil in vacuum and by using ternary phase diagram by using three alcohols namely isopropyl alcohol, tertiary butyl alcohol and ethyl alcohol. It was observed that the results were in favour isopropyl alcohol in Indian scenario.

Two M.Tech. thesis were published out of this project work which was very much need based for our country and had created interest among the users. WRBC, ONGC has shown interest to carry out further works.

Prior to the above completed project three more UGC/ISM sponsored projects were also completed by the Co-investigator.

**Ongoing Project:**

Project Title: “Efficient Extraction of Hydrocarbon Resources”

From : April 2002 onwards

Duration: 5 Years

Date of start: April 2002

Funding Agency: UGC

Total Cost: Rs.39 lakhs

*Progress Repot* : Equipments have been procured and preliminary studies have been made and already two M.Tech. thesis have been published. Topics of the thesis are:

- (i) Studies on the Nucleating of Gas Hydrates
- (ii) Profile Modification of Reservoir using Monomer Based Gel System.