#### <u>Archana</u> Assistant Professor, Department of Petroleum Engineering Indian Institute of Technology (Indian School of Mines) Dhanbad-826004, Jharkhand, India

# Personal Information

Name	:	Archana
Date of Birth	:	06-Dec-1981
Mobile number	:	+91-9471191527
Marital Status	:	Married
E-mail contact	:	archanabalikram@iitism.ac.in
		balikram.archana@gmail.com

I have altogether 12+ years of working experience in software industry and teaching.

# **Educational Qualification**

PhD	Department of Petroleum Engineering, IIT(ISM), Dhanbad	Submitted August 2018	Under Review
Master Degree	M.Tech from IIT Guwahati, India	May 2006	First Division with Distinction
Graduation Degree	B.Sc Engineering in Chemical Engg from BIT Sindri, Dhanbad India	July, 2004	First Division with Distinction
Intermediate	Bihar Board	June, 1999	First Division
10 <sup>th</sup>	Bihar Board	June, 1997	First Division

# Employment

- Worked as Project Engineer, Software Developer, System Tester, Team Lead, Business Analyst and Solution Delivery Analyst in Wipro Technologies, Bangalore since August 2006 till Oct 2010
- Worked as Assistant Professor in Department of Petroleum Engineering in Indian Institute of Technology (Indian School of Mines), Dhanbad since 25<sup>th</sup> Oct 2010 till date

### Publication & Conferences

- Balikram, A. and Ojha, K., 2016. Studies on kinetics and thermodynamics of Cr (VI) adsorption onto sand to check feasibility of its use as tracer in oilfields. Asia-Pacific Journal of Chemical Engineering, 11(6), pp.1060-1068.
- Paper Presented on "Comparative study on adsorption of chloride and salicylic acid for their preferable application as tracer in sand and shale formation " on International conference International Conference on Chemical Engineering and Advanced Polymeric Material", Birla Institute of Technology, Mesra, Ranchi, 18-20 August 2016
- Organized the International Conference On " Challenges & Prospects of Petroleum Production & Processing Industries" 12-14<sup>th</sup> January, 2017, IIT(ISM), Dhanbad
- Attended Conference on "International Shale Gas & Oil Workshop", 28-29 Jan 2016 in New Delhi
- Attended Conference on "International Vision Zero Conference on Occupational Safety & Health" 15-17 March, 2017, New Delhi
- Attended Workshop the 7<sup>th</sup> Proficiency Course on "Modern Practices On Petroleum Exploration" In KDMIPE, ONGC, Dehradun, 5<sup>th</sup> -9<sup>th</sup> Sep 2011.
- Attended the training on "Overview of Drilling Technology" in IDT, ONGC, 21<sup>st</sup>-24<sup>th</sup> Dec 2010

### **Sponsored Projects**

Minor Research Project entitled "Adsorption Study & Determination of Physiochemical Properties of Porous Media Using Tracer Techniques" Sponsored By TEQIP-II, duration Oct 2015-Jun2016.

### Foreign Visit

- Presented Paper on "Advancement in sand Control" in 3rd BIT's annual congress, on Well stimulation and EOR (WSEOR) during April 25-27, 2012 held in Xi'an, China
- Worked as Business Analyst/Lead Developer In Wipro Technologies for Client National Grid during Jul 2009 to Mar 2010 in Hinckley, Leicestershire, UK
- Worked as Business Analyst/Lead Developer In Wipro Technologies for Client National Grid during Feb 2009 to Mar 2009 in Hinckley, Leicestershire, UK

# Work Experience

# Academic Work Experience

Worked as Assistant Professor in Department of Petroleum Engineering in Indian Institute of Technology (Indian School of Mines), Dhanbad since 25<sup>th</sup> Oct 2010 till date > Area of specialization in the following subject during 2010-2018

Course Specialization
Natural Gas Engineering
Petroleum Drilling and Production
Unit Operations for Petroleum Industry
Petroleum Reservoir Modeling and Simulation
Oil and Gas Property Evaluation, Economics and Risk Analysis
Oil and Gas Processing Plant Design
Integrated Reservoir Management
Advanced Petroleum Formation Evaluation
Research Methodology

#### **Industrial Visit Places**

- GEOPIC Dehradun, KDMIPE Dehradun, Tel Bhavan Museum, IIP Dehradun, IDT Dehradun duration 13.12.2010-24.12.2010
- ONGC Ahmedabad, ONGC Mehsana, IRS Ahmedabad duration 16.05.2011-10.06.2011
- KDMIPE Dehradun, IDT Dehradun, GEOPIC Dehradun, Tel Bhavan Museum, IIP Dehradun duration 12.12.2011-16.12.2011 & 21.05.2012-24.05.2012
- IOGPT Mumbai, Uran O & G Processing Plant & Hazira Gas Processing Complex duration 12.12.2011 –06.01.2012

### Software Work Experience

Worked as Project Engineer, Software Developer, System Tester, Team Lead, Business Analyst and Solution Delivery Analyst in Wipro Technologies, since August 2006 till Oct 2010

- 4+ years of experience in complete software development life cycle.
- Worked from client location United Kingdom for a total duration of 12 months
- Possess extensive Business domain expertise in Utilities- overall operations of National grid gas network in the UK
- Extensive expertise in analysis, design, development and deployment of applications in Asp.Net
- Have strong experience in C# and VB.Net programming.
- Have strong experience in AJAX, JavaScript, HTML
- Have strong experience in XML
- Have strong experience in TELERIK RADA software
- Have strong experience in data base design and PL/SQL
- Experienced in all phases of SDLC, Project Management, Software Practices and Standards
- Have strong experience in Oracle and SQL Server databases
- Ability to deliver projects on time with high quality
- Proven ability to learn and adapt quickly, motivated self starter and enthusiastic team member
- Excellent analytical, communication and problem-solving skills.

• Excellent team member with problem-solving and trouble-shooting capabilities, Quick Learner, highly motivated, result oriented and an enthusiastic team player.

#### .NET EXPERIENCE

- Successfully delivered multiple end to end project as a developer/Senior Developer/Business Analyst
- Developed multiple ASP.Net projects for National Grid accounts
- As an acknowledged Business/Technical Analyst, ASP.Net developer, I have implemented efficient design standards, checklists and conventions.

#### ANALYSIS EXPERIENCE

- 12 months of experience as a Business Analyst
- Analysis of Business requirements in workshops with Business users. Produce Requirement and Design documents
- Coordinate with Business users to stabilize the Business Process
- Review of Prototypes developed by offshore team

# Skill Set

•	Web Technologies AJAX	: ASP.Net, VB.Net, C#, CSS, HTML, XML,
		JavaScript, Web Service, IIS 6.0, IIS 7.0
-	Frameworks	: .Net Framework 2.0 and .Net Framework 3.5
-	Operating Systems	: Windows 2000/Windows XP
-	Tools	: Visual Studio 2008/2005,
		Rational Clear case, Enterprise Library 4.1
		Enterprise Library 3.0, Ajax 1.0, Ajax 3.0, Telerik Rada, Control – M, Toad, Oracle Form, Oracle Reports
-	Databases	: Oracle9i, Oracle10g, Oracle11g R2, SQL
		Server 2005
•	Outstanding qualities	: Good Technical, Analytical and Communication skills, Effective Leadership qualities

### Experience/ Accomplishments

#### <u>National Grid</u>

Client	National Grid, UK
Duration	May 2010 to Oct 2010
Location	Bangalore

Project	Interruption Reform Interruption Reform was projects of National grid in distribution area. Due to some unavoidable circumstances consumer has to stop using gas, Interruption reform system provides facility to create Interruption, incident, intimate consumer via sending notices and fax to achieve the objective. The application is based on ASP.Net 3.5, Visual Studio 2008 and Oracle 11 g R2 database.
Job Title	Team Lead
Contribution	<ul> <li>Leading and Coordinating offshore team and clarifying all technical and functional doubts</li> <li>Preparing the task for offshore team</li> <li>Coordinating the onsite-offshore meeting</li> <li>Proving the development update to Manager</li> <li>Involve in low level design review</li> <li>Involve in dot net code review</li> <li>Involve in unit test case review</li> <li>Involve in system test case review</li> <li>Suggested Solution options to cater to the Business requirements</li> </ul>
Environment	The project is getting developed using ASP.Net 3.5, C#, Oracle 11g R2, Enterprise Library 4.1, Ajax 3.0. The product will be deployed on Window 2008 Server and IIS 7.0.

#### National Grid

National Grid		
Client	National Grid, UK	
Duration	Apr 2009 to Mar 2010	
Location	United Kingdom/Bangalore	
Project	<b>PMAC System Improvement Project</b> PMAC System Improvement project aims at providing National Grid with sufficient Information and ability to be able to operate the low-pressure pipelines closer to the optimal level, which in turn will reduce the leakage by a significant margin and will save huge sums to National Grid. The application is developed using ASP.Net 3.5 and Oracle 10 g database. This project aims at providing the users with a tool which can give effective data for decision making and also help them track their actions on issues on the network to closure.	
Job Title	Business Analyst/Lead Developer	
Contribution	<ul> <li>Suggested Solution options to cater to the Business requirements</li> <li>Detailed functional analysis of PMAC project with National Grid Users</li> <li>Coordinating the design reviews with the client. Tracking all queries until signoff</li> <li>Delivered High Level Requirements document</li> <li>Understanding the data base requirement and designing the database design</li> <li>Developed the Application and debugging</li> <li>Worked on Google Map</li> <li>Coordinated with offshore team and clarified all technical and functional doubts</li> <li>Handled the huge amount of data migration</li> <li>Assisting user in User Acceptance testing and clarified all the doubts raised by</li> </ul>	

	them
	Build and Deployed the Application on server
	Coordinated System testing with testing team
	Supported System testing and bug fixing
	Coordinated the production deployment with other parties
	Provided support for Post Implementation phase (PIS)
Environment	The project developed using ASP.Net 3.5, C#, Oracle 10g. The product deployed
	on Window 2003 Server and IIS 6.0. It has used Enterprise Library 3.1 and Ajax
	1.0.

#### National Grid

National Grid		
Client	National Grid, UK	
Duration	Jul 2008 – Mar 2009	
Location	United Kingdom/Bangalore	
Project	Grain LNG – Shipper Information System and GSIS Marine	
	National Grid has a number of related businesses such as LNG importation and	
	storage, land remediation and metering.	
	Shipper Information System is aimed to be a self service portal for the National	
	Grid Grain LNG customers. This should provide facilities such as online access to	
	data and published reports from the portal should include information from various	
	departments of Grain business and reports will be published for shippers by the	
	Commercial team.	
Job Title	Lead Developer	
Contribution	• Understanding the requirements and providing the detailed design document	
	(Low level design) to achieve it	
	• Understanding the data base requirement and designing the database design	
	Developing the Prototype	
	Developing the Application and debugging	
	Preparing the Unit Test cases and conducting the Unit Testing	
	Involved in quality Peer code review	
	Support for System Testing and Code Fixing	
	Involved in Preparing the Traceability matrix	
	Developing the Application and debugging	
	Support for System testing and code fixing	
	• Support for User Acceptance Testing(UAT) and code fixing	
	• Coordinated with Deployment team for deploying the application on	
	production server	
	Support for Post Implementation Support phase	
	Knowledge transfer to third parties (Support Team)	
Environment	The project developed using Visual studio 2005, ASP.Net 2.0, VB, SQL Server	
	2005, Ajax 1.0. The product deployed on Window 2003 Server and IIS 5.0.	

#### National Grid

Client	National Grid, UK
Duration	Apr 2008 – Jul 2008
Location	Bangalore
Project	IGMS-G8
	National Grid publishes gas operations data to the public domain. National Grid

	achieves this data publication by using the Market Information Provision Initiative (MIPI). IGMS-G8 was the enhancement project, which take cares of existing MIPI application changes.
Job Title	Developer
Contribution	Involved in Preparing the Traceability matrix
	• Preparing the Unit Test cases and conducting the Unit Testing
	Developing the Application and debugging
	• Preparing the System Test cases and conducting the System Testing and code
	fixing
	Support for System Integration Testing and code fixing
	Support for User Acceptance Testing(UAT) and code fixing
Environment	This enhancement project developed using Telerik Rada and Oracle 9i.

#### National Grid

Natiolial GI	
Client	National Grid, UK
Duration	Aug 2007 - Nov 2007
Location	Bangalore
Project	<b>SOMSA Exit - Tactical Solution</b> The System Operation Managed Service Agreement (SOMSA) is a contract between National Grid and the Independent Distribution Network (iDN) owners for provision of services as defined to control and operate the distribution networks on their behalf. SOMSA is a temporary arrangement and this work is required to support the iDNs in exiting from the agreement. In this case the specific need is to create the capability for independent Network Operators to access three legacy NG systems – SC2004, IM and ECQ - from within their respective Control Centre.
Job Title	System Tester
Contribution	<ul> <li>Understanding the requirements and preparing the Test cases documents and involved in manual testing</li> <li>Preparing the Unit Test cases and conducting the Unit Testing</li> <li>Preparing the System Test cases and conducting the System Testing</li> <li>Preparing the System Integration Test cases documents</li> <li>Conducting the SIT</li> <li>Involved in Preparing the Traceability matrix</li> <li>Support for User Acceptance Testing(UAT)</li> </ul>
Environment	The project developed using Oracle7.x, Developer 2000, Oracle form and reports

#### National Grid

Client	National Grid, UK		
Duration	Mar 2007 -Jul 2007		
Location	Bangalore		
Project	DNCC Predict Forecaster Replacement		
	This project deal with data to predict the future gas demand. It uses file transfer		
	mechanism to do that. It handles demand, weather and interruption data.		
Job Title	System Tester		
Contribution	• Understanding the requirements and preparing the Test cases documents and involved in manual testing		
	Preparing the Unit Test cases and conducting the Unit Testing		

	Preparing the System Test cases and conducting the System Testing
	Preparing the System Integration Test cases documents
	Conducting the SIT
Environment	The project developed using PL/SQL, Oracle 7.x, and Oracle Form 4.5

### Trainings

ASP.NET 2.0 , C #, SQL Server 2005	Wipro Technologies, India	Sep– Nov 2006
PL/SQL	Wipro Technologies, India	Jun -2007

# Further Information

- Member of Society of Petroleum Engineering (SPE) since Jan 2012, Membership No. 3585057
- Member of Indian Institute of Chemical Engineers since May 2015, Membership No. LM-56562
- Departmental Student Coordinator of B. Tech 2n Year during (2014)
- Faculty Coordinator for 3rd year B.Tech/PE since 2015
- Departmental Documentation cell Coordinator for Petroleum Engineering Department since August 2018
- > TEQIP-III departmental coordinator since 2017
- > Member of Tabulation committee from PE department since 2010
- Member of Departmental Advisory Committee, DAC in Petroleum Engineering since 2010
- Faculty In-Charge of Reservoir Engineering Lab (Petroleum Engineering) since 2015
- Hostel Warden of Girls Hostel since June 2017 till date

### Referees

Dr Keka Ojha Associate Professor Department of Petroleum Engineering IIT(ISM), Dhanbad Jharkhand-826004 Email: kekaojha@iitism.ac.in Phone: 0326-2235484 Dr Tarun Kumar Naiya Assistant Professor Department of Petroleum Engineering IIT(ISM), Dhanbad Jharkhand-826004 Email: tarunnaiya@iitism.ac.in Phone: 0326-2235879