

**Partha Das**

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**Domain:** Web Application. Having 2 plus years experience in .NET technologies.

**Area of Expertise:**

- o Good Experience in developing Client/ Server Applications using **C#, XML** as front end and **SQL Server**.
- o Hands on experience in application software programming, understanding of client requirements.
- o Knowledge of **ASP.NET, C#.NET**

**Personal Accomplishments:**

**May 12 2008 – till date** continuing: Lecturer, Dept of MCA, Institute of Technical Education & Research, Siksha O Anusandhan University, Bhubaneswar.

**January 2007 – May 11th 2008:** Working as a Faculty Member in Institute of Mathematics & Application, Govt. of Orissa, Bhubaneswar.

**January 2005 to December 2006:** Worked as Research Associate at Department of Computer and Information Science, Central University, Hyderabad.

**May 2004 – December 2004:** Worked on Cryptography, Institute of Mathematics & Application, Govt. of India, Bhubaneswar

**Technical Skills:**

Operating Systems : Win 2000 Professional, Win 2000 ME, Win XP

Languages Known : C#, Classic ASP

Internet : ASP.NET, HTML, XML

Microsoft .NET Technologies : C#.NET, VB.NET

Scripting Languages : Java Script

RDBMS : MS SQL Server 2000 & 2005, MS Access

**Academic Background:**

- o MCA (Master In Computer Applications) from KIIT, Utkal University, 2004
- o BA MATH (Honors) from B.J.B College, Utkal University, 2001

**Certifications/Training:**

- CSM Technologies, Dept of IT, Govt of India, 2007: Hands-on development training in a live .NET payroll system
- Lakshya Institute, 16<sup>th</sup> August 2007-November 2007: C# windows application training and hand-on training on XML
- Department of MRD,IMS & SUM Hospital, Bhubaneswar, May 16<sup>th</sup> 2008, Designation: System Analyst

## Project Undertaken

### Project # 1

Title : Intrusion Detection System (IDS)  
 Client : C-DAC, Bangalore  
 Team Size : 12  
 Duration : January 2005 to December 2005  
 Software : Perl, MySQL  
 Platform : Fedora Core Linux  
 Role : Programmer

**Description:** The job of an Intrusion Detection System is to detect hacker and inform the network administrator. There are two kinds of detection host based and anomaly based. My work is based on anomaly based intrusion detection systems. These types of IDS detects intruder by observing the current behavior of the packets captured from the net with the expected behavior (to be created) and if it deviates then it will raise an alarm.

It works in the following way:

- Create a database of normal packet when the system is not under attack.
- Compare the database with the new packet captured from the net.
- Use the statistical properties/automata techniques to detect anomalies.

My role in the project was to perform performance evaluation of various Intrusion Detection Systems (IDS) under various scenarios. I used the IDS prototypes developed by my teammates and subjected the IDS to different stress test. Live packets were injected into the network and the response of IDS was analyzed using statistical properties and automata techniques against various database models to detect anomalies in IDS.

### Project # 2

Title : Digital Cash (some cryptographic protocol in e-banking)  
 Client : Institute of Mathematics & Application (I.M.A), Bhubaneswar, Govt. of Orissa  
 Team Size: 1  
 Language: C  
 Platform : Red Hat Linux

Duration : August 2004 - December 2004

Role : Programmer/Researcher

**Description:** In e-commerce/e-banking the payment system plays a major role by exchanging the digital cash or coins. The payment system now followed in the Internet has a major problem of security and anonymity of users. The cryptographic in e-banking is a secure protocol that guarantees the secure offline transaction without revealing the payer's identity. The e-banking protocol has three important modules

- o Withdrawal module: This module withdraw money
- o Payment module: transfer the money from the bank account to the wallet of the shopkeeper.
- o Deposit module: helps seller to deposit money she/he has received to his bank account.

**Implementation:** I have designed and implemented the RSA algorithm, which is the key cryptosystem (encryption and decryption) for implementing the protocol for e-banking RSA is used to generate the key and digital cash in three above protocols in Chaum-Fiat-Naor form. To accomplish this we have implemented Miller-Rabin probabilistic primality test to pick up two primes at random which are input to the RSA for key generation. The advantage of RSA lies in the choice of primes, which generates keys for cipher message in e-banking.

### **Project # 3**

Title : Expense Tracker Project

Duration : Continuing

**Description:** This project involves an expense tracker windows application implemented in C# .NET 2.0 technologies. The application is based on typical 3-tier architecture (HTML interface, C# middle tier, SQL 2005 database). The application has three main business features:

Profile Management: Provides the option to manage users who will gain access to the application using traditional login and password. It also provides various security features for login users.

Expense Tracking: This module provides interface to the user to enter everyday expense.

Statistics: This module provides various tools to the user to compare expense between various months graphically via various graphs like pie chart and histograms.

The application development is in progress and various parts of the modules are partially developed and complete implementation is expected soon.

## **Project # 4**

Title : Payroll System  
Client : CSM (STPI)  
Team Size : 2  
Duration : February 2007-July 2007  
Software : C#.NET, SQL Server 2005, Window Application  
Role : As a developer involved in Coding

**Description:** The main objective is to provide a distributed solution to maintain the Employee payroll in an easy manner. This proposed system takes all the Input from the user, and generate the payroll and the necessary Report for the Organization. This project distributed with three modules.

### Allowance Module

This module maintains a database for various types of Allowances like Honorarium, HRA, TA / DA etc applicable for employees like Administrative and Field Support Staffs.

### Deduction Module

This module maintains a database for various types of Deductions like IT, PF, GPF/Vehicle/Marriage/Bank Loans etc applicable for employees.

### Transaction Module

This module keeps track of different types of Allowances and Deductions and calculates the net salary of the employee. Allowances like HRA / DA will be calculated as per the Basic Pay. Deductions like Loans (Short Term / Long Term) as well as loan installment numbers will be calculated /maintained accurately. It contains different options like New Loans, Close Loans before maturity etc.

It has various Reports such as Consolidated pay Bill, Abstract Pay Bill, Loan Statements, Bank Statements, IT Statements, Pay Slip for a Particular Employee as well as all employees at a time.

So, using this package all the organizations would be able to maintain their employee's pay roll in an automated manner.