Proposal for
ICT-Related Research and Development
Grant for

CAMPUS CAREER PORTALS

Monis Rahman
Naseeb Online Services (Pvt) Ltd.
# Table of Contents

<table>
<thead>
<tr>
<th>Description</th>
<th>Page #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Project Identification</td>
<td>4</td>
</tr>
<tr>
<td>A. Reference Number</td>
<td>4</td>
</tr>
<tr>
<td>B. Project Title</td>
<td>4</td>
</tr>
<tr>
<td>C. Project Director (PD)</td>
<td>4</td>
</tr>
<tr>
<td>D. Organization (The Principal Investigator)</td>
<td>5</td>
</tr>
<tr>
<td>E. Other Organizations Involved in the Project</td>
<td>5</td>
</tr>
<tr>
<td>F. Key Words</td>
<td>6</td>
</tr>
<tr>
<td>G. Research and Development Theme</td>
<td>6</td>
</tr>
<tr>
<td>H. Project Status</td>
<td>6</td>
</tr>
<tr>
<td>I. Project Duration</td>
<td>6</td>
</tr>
<tr>
<td>J. Executive Summary</td>
<td>7</td>
</tr>
<tr>
<td>2. Objectives of the Project</td>
<td>7</td>
</tr>
<tr>
<td>A. Scope and Introduction of the Project</td>
<td>7</td>
</tr>
<tr>
<td>B. Specific Objectives Being Addressed by the Project</td>
<td>8</td>
</tr>
<tr>
<td>3. Research Approach</td>
<td>10</td>
</tr>
<tr>
<td>A. Literature Review Summary</td>
<td>10</td>
</tr>
<tr>
<td>B. Development / Research Methodology</td>
<td>11</td>
</tr>
<tr>
<td>C. Key Milestones and Deliverables</td>
<td>15</td>
</tr>
<tr>
<td>4. Benefits of the Project</td>
<td>15</td>
</tr>
<tr>
<td>A. Direct Customers / Beneficiaries of the Project</td>
<td>15</td>
</tr>
<tr>
<td>B. Outputs Expected from the Project</td>
<td>16</td>
</tr>
<tr>
<td>C. Organizational / HRD Outcomes Expected</td>
<td>18</td>
</tr>
<tr>
<td>D. Technology Transfer / Diffusion Approach</td>
<td>18</td>
</tr>
<tr>
<td>5. Risk Analysis</td>
<td>19</td>
</tr>
<tr>
<td>A. Risks of the Project</td>
<td>19</td>
</tr>
<tr>
<td>6. Contractual Matters</td>
<td>19</td>
</tr>
<tr>
<td>A. Contractual Obligations under this Project</td>
<td>19</td>
</tr>
<tr>
<td>B. Competent Authority of the Principal Investigator (Organization)</td>
<td>20</td>
</tr>
<tr>
<td>Annexure A – Curriculum Vitae</td>
<td>21</td>
</tr>
</tbody>
</table>
PROPOSED SUMMARY

1. Objectives and Research Background

a) Proposed Objectives: We propose that the Campus Career Portal is adopted across the country’s higher education institutions as it is currently being integrated by Lahore University of Management Sciences (LUMS), and University of Central Punjab after long research and analysis provided by the LUMS Career Development Office (CDO) which acts as a placement office aimed to provide fitting jobs to their graduating classes. An MoU has been created on agreed terms both the university and ROZEE.PK addressing various terms from technology transfer to server hosting fee for the database which is carried entirely by ROZEE.PK even in the years to come.

b) Experience with Universities: This BETA phase and the MoU will be replicated across other institutions such as GIK, NUST, UET and other institutes of high acclaim across Pakistan that are already regular participants of ROZEE.PK annual job fairs and have offered detailed requirements of a systematic online integration with Pakistan’s leading jobsite to brand their students as “highly qualified” to match industry standards. Some universities are also regular users of Recruitment tools offered by ROZEE.PK and provide feedback on unique requirements educational institutions have.

c) Training for the Portal: As these Campus Career Portals are integrated, the training required for the placement office to regularly input data in the portal will be a simple organic process. The Campus database will see a natural growth because the barrier to entry for all parties is very low. It is the students and not the placement office, which will upload the resume because they are incentivized to do so in search of the highest paying job. A student can attach a resume with the click of a button and ROZEE.PK CSRs will data entry key essentials about the student, and ROZEE.PK patented technology will allow a one step search access to all student resumes. For Example an employer can enter this keyword search and get results from a large database with pinpoint accuracy: “CS + 2007” and get the graduating class of Computer Science from 2007 without any human error.

d) Ease of Use: ROZEE.PK was rated by Dawn Newspaper publication (Spider Magazine Jan 2008 Issue) as the top job website with high rating on Ease of Use, Size, Security and Privacy and Searching Capabilities. It is for this reason the site has grown on its own to host 1321775 Job applications for 18,183 total jobs posted by 8045 companies.

Since the same technology is replicated for the Campus Career Portals we project the same growth in database of alumni and students over the years. It is envisioned to be a similarly self-supported user-initiated database with systematic natural growth which reduces the need for training. All training tips are embedded within the website so any user, be it student, employer or placement officer can learn as they create tasks.

e) Utilization Plan: Universities will receive customized student and alumni placement technology to help their career development offices better match their graduates with industry needs. This technology will be hosted, managed and enhanced by ROZEE.PK's sophisticated IT team and infrastructure, at no charge to participating institutions.

This technology, delivered as a hosted service, will incorporate the best practices and workflow input from a wide array of institutions and companies. Participating academic institutions will
enhance value for their student body by maximizing career choices through the use of this technology without burdening internal IT departments with managing and maintaining complex information systems.

Furthermore, all data entered into university campus portals will remain the property of the respective universities. ROZEE.PK’s Campus Portal technology will enable academic institutions to gather and organize unprecedented data, forming a valuable asset. The data will be used by both academic institutions and ROZEE.PK to facilitate matching of students and alumni with industry needs.

1. Project Identification

A. Reference Number:

(for office use only)

B. Project Title:

Campus Career Portals

C. Project Director (PD):

Name: Mr. Monis Rahman
Designation: Chairman and CEO,
Organization: Naseeb Online Services (Pvt) Ltd
Mobile #: Tel. #: Email: monis@naseebnetworks.com

C1. Joint Project Director (JPD):

Name: Mr. Sameer Siddiqui
Designation: Vice President Products, Naseeb Networks (Pvt) Ltd
Organization: Naseeb Online Services (Pvt) Ltd
Mobile #: Tel #: Email: sameer@naseebnetworks.com

C2. Contact Person:

Name: Ms. Aisha Sarwari
Designation: Marketing Manager
Organization: Naseeb Online Services (Pvt) Ltd
Mobile #: Tel. #:
Email: sarwari@naseebnetworks.com

C3. Project Team:

<table>
<thead>
<tr>
<th>Title / Position</th>
<th>Number</th>
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<tbody>
<tr>
<td>Project Director</td>
<td>1</td>
</tr>
<tr>
<td>Joint Project Director</td>
<td>1</td>
</tr>
<tr>
<td>Project Manager</td>
<td>1</td>
</tr>
<tr>
<td>Senior UI Architect</td>
<td>1</td>
</tr>
<tr>
<td>Creative Designers</td>
<td>3</td>
</tr>
<tr>
<td>Development Architect</td>
<td>1</td>
</tr>
<tr>
<td>Senior Developer</td>
<td>3</td>
</tr>
<tr>
<td>Mid-Level Developer</td>
<td>4</td>
</tr>
<tr>
<td>Senior QA Engineer</td>
<td>4</td>
</tr>
<tr>
<td>Mid-Level QA Engineer</td>
<td>8</td>
</tr>
<tr>
<td>Web Developer</td>
<td>6</td>
</tr>
<tr>
<td>Back-End Developers</td>
<td>12</td>
</tr>
</tbody>
</table>

D. Organization (The Principal Investigator):

Name: Naseeb Online Services (Pvt) Ltd. (ROZEE.PK)
Address: 210 A, Siddiq Trade Centre, 72 Main Gulberg, Lahore.
Tel. # :  Fax # :  
Website: http://rozee.pk

E. Other Organizations Involved in the Project:

E1. Industrial Organizations: N/A

E2. Academic Organizations:

<table>
<thead>
<tr>
<th>Organization Name</th>
<th>Role / Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lahore University of Management Sciences</td>
<td>As a close partner in the Beta phase LUMS will provide valuable feedback to improve matching tools at the back-end for graduates, interns and alumni for implementing useful features vis a vis recruitment and research in the Campus Career Portal for the Beta website</td>
</tr>
</tbody>
</table>

E3. Funding Organizations: N/A
E4. **Other Organizations:** N/A

F. **Key Words:**
   campus, portal, student, faculty, career, internship, job, research, technology

G. **Research and Development Theme:**

We envision the Campus Career Portals developed by ROZEE.PK and hosted on ROZEE.PK servers, to be an institutionalized part of the technology advancement plan for 85 universities across Pakistan. These web portals provide higher education institutions a sophisticated platform to manage their knowledge and to database their key resources of students, alumni and their research in a way that converts their human resources into an appreciating asset.

Collectively this centralized repository of graduates, researchers and industry leaders realize the goal to "achieve an economically viable system" that reduces unemployment and increases the country's industrial output as it raises productivity through human capital.

ROZEE.PK will host the software and valuable university data on its own servers. Universities will not bear any cost associated with hosting. As each university comes on board, ROZEE.PK will add that university to its existing infrastructure without any cost being borne by the university.

**Why ROZEE.PK Does it better.**

ROZEE.PK has built a robust product over the years. We have country's largest CV database. In addition, all major and minor employers in Pakistan are either currently advertising, or have advertised in the past, their open positions on ROZEE.PK. Everyday, we get about 200 new CVs and 150 jobs uploaded to our site.

Additionally, ROZEE.PK is the only company that organizes regular country-wide job fairs. These job fairs attract the best employers and a wide range of candidates. ROZEE.PK uses these events to hold seminars and disseminate key information to help job seekers in today's competitive market.

ROZEE.PK takes the protection of its members' data very seriously. ROZEE.PK is a certified licensee of the TRUSTe® Privacy Seal Program. The privacy statement and practices of www.rozee.pk have been reviewed by TRUSTe for compliance with the strict program requirements.

Also, ROZEE.PK has been SSCP certified after passing the Policy, Performance, and Practices Review.

H. **Project Status:**

(Please mark ☑)

☑ New Modification to previous Project
   Extension of existing project

I. **Project Duration:**

Expected Starting Date (mm/dd/yyyy): July 2008

Planned Duration in months: 18 Months
J. Executive Summary:

According to the Higher Education Commission, there are 85 universities in Pakistan producing over 120,000 degreed graduates each year. However, data of considerable national importance is simply not available. This data is critical to attracting foreign companies to invest in setting up R&D operations in Pakistan as well as assessing the countries developmental needs.

The critical data that today, no institution is able to provide is the collective information such as:

1) the number of graduates in a particular field,
2) skills/qualifications of professors,
3) distribution by gender or geographic region,
4) percentage of graduates successfully placed into the job market each year, etc.

Furthermore, although Pakistan’s economy continues to grow at amongst the highest GDP growth rates in the region, we are unable to efficiently fuel our businesses with human capital due to poor matching.

The problem is two fold:

(i) Large amounts of data must be aggregated, updated, and manipulated in a format conducive to analysis. All stakeholders must provide this data and it must be converted to a similar format. Stakeholders must be incentivized to keep their data continually updated.

(ii) Powerful matching and ranking algorithms are needed to process this large amount of structured and unstructured data quickly and in a scalable manner. This matching must produce meaningful results for all stakeholders to further incentivize them to update and improve the quality of their data in the system.

2. Objectives of the Project

A. Scope and Introduction of the Project:

The Campus Career Portal proposes an efficient, scalable and distributed system of matching students, academia and industry to achieve industry-funded research projects and industry demand recruitment. It will also generate invaluable statistics, and effectively match graduates within their respective industries with pinpoint accuracy.

ROZEE.PK will host the software and data on its own servers. Universities will not bear any cost associated with hosting. As each university comes on board, ROZEE.PK will add that university to its existing infrastructure without any cost being borne by the university.

Two key pieces of the solution of ROZEE.PK’s Campus Career Portal interoperate to make it a success:

1. Ever increasing self-generated/updated quality data
2. Advanced algorithms for matching both unstructured and structured data by industry, graduates and professors.

ROZEE.PK will be signing up several universities to offer them the Campus Career Portals. However, the portals will be used by the university placement office to connect students with industry professionals that wish to recruit from the university. It will also allow industry professionals to connect with professors engaging in relevant research through auto-matching algorithms.
All participants in our ecosystem (industry, professors, students, alumni and career development offices) are highly incentivized to continually input their latest data since all complementary players are able to view it.

Every university campus career portal will have a separate website with XSL skinning for a customized look. However, the same unified code base with XML hooks will power all university campus portals and will be transparently hosted on ROZEE.PK’s servers.

ROZEE.PK is in an ideal position to make this a success, not just because of highly advanced matching algorithms already working on our existing job site for past 3 plus years, but also because of its traction in the market with over 8,800 companies seeking human capital through its site. ROZEE.PK is used by over 550,000 job seekers and over 1.4 Million job applications have been submitted through the website.

The productivity features that we will be deploying for the universities at the backend have undergone a vigorous testing process which have made the site streamlined vis-à-vis its local challenges.

**ROZEE.PK will host the software and data on its own servers. Universities will not bear any cost associated with hosting. It will also not bear any cost with regard to access to its student and alumni database using ROZEE.PK cutting-edge recruiting tools to manage access and search the database.** As each university comes on board, ROZEE.PK will add that university to its existing infrastructure without any cost being borne by the university.

**B. Specific Objectives Being Addressed by the Project:**

**B1. Research Objectives:**

*Effectively developing and deploying Campus Career Portals across Pakistan can dramatically increase productivity and profitability of research and education. The cutting-edge of this initiative lies in aligning the demands of the industry with the needs of all higher education institutions, represented by graduates, alumni and researchers.*

The objective is to evolve the Campus Career Portal from static campus web pages to a comprehensive interface for accessing university resources (including both structured and unstructured data).

To provide customization options to each institution integrating the Campus Career Portal and define/organize detailed technology features based on their unique needs and environment. This enables an option to integrate with the user experience of each institution and extend deeper into their value chains.

**B2. Academic Objectives:**

a. **Within next 1 year**

   HEC accredited universities will be on the campus portal platform allowing academia to:

   (i) Produce higher quality graduates who would have amassed practical training gained through industry internships advertised on their university’s portal
   (ii) Better align faculty research with industry needs
   (iii) Attract additional skilled graduates to join university faculty due to increased research funding from industry
(iv) Perform analytics to better identify education gaps and improvement areas

B3. Industrial Objectives:

b. Short Term Objectives

HEC accredited universities will be on the campus portal platform allowing industry to:

(i) Hire and train thousands of interns (As a reference point ROZEE.PK sourced 8000+ jobs to industry in the 3rd Annual Job Fair)
(ii) Hire full-time permanent degree holders from universities
(iii) Match research proposals between industry and university faculty
(iv) Provide detailed statistics related to human capital availability for all participating stakeholders
(v) Decrease graduate unemployment for participating universities

Additionally, ROZEE.PK’s campus portal platform will be mature and will compete head-to-head with Monstertrak (Campus Product launched by the world’s largest Job site Monster.com), making ROZEE.PK a leading global phenomenon in online recruitment.

B4. Human Resource Development Objectives:

The overall Human Resource development that will occur through the gradual deployment of these university portals is huge.

The student and alumni population will gain from getting front-line exposure to the industry leaders advertising their open jobs on the portal. The academicians would gain by getting their research projects more aligned with the industry needs.

The industry will gain by having easy access to research done by academicians.

Employees will also gain by getting on-the-job training with internships and jobs aligned with industry and paid for by industry. Industry gets easy access to the best and the brightest of students from multiple universities.

University Career Development/Placement office staff reduces inefficiencies by managing student data in a more flexible and easily transferable/convertible format for the industry they fill vacancies for.

HR departments of the large number of companies advertising their open positions and searching for new hires on these Campus Portals will have instant access to a large pool of students from different universities.

Today, the job of an HR person is extremely hard if he is to embark on the task of trying to hire fresh graduates. The job is made hard because of various reasons. One, there is typically no central office in most universities that can easily put the HR person in contact with the students. Two, the HR person, at best, gets a CV book after many days. Trying to find CVs in multiple booklets from different universities is a highly inefficient way of finding the right candidate. Three, there is no easy way to search across universities for potential candidates. Four, if the HR person wants to proactively post a job, he will more than likely have to either a) visit campuses and have job fairs; and b) send individual job requirements to multiple universities that will then have to email the job details to its students.

ROZEE.PK’s Campus Portals will remove all these barriers and literally reduce to minutes a
tasks that used to take weeks. Our same HR person in questions will simply login to his account at various universities and simply post a job using ROZEE.PK’s 2-step job posting process. Students from multiple universities will see the job and send CVs that will get stored in HR manager’s account a very manageable manner. The task of contacting an office and physically being present in order to tell students about an open job will disappear.

If the same HR manager wants to search for CVs without posting a job, he can do that across multiple universities where he has an account with a click of a button. Gone will be the need to wait for a printed booklet from those “organized” universities that provide this facility. Instead of manually going through multiple printed CVs, the HR manager will simply search for key words to surgically remove the candidates that don’t fit the criteria and to get a result of highly matching candidates. Productivity of HR groups in companies will greatly enhance and benefits reaped by using the Campus Portals will be significant.

B5. Other Objectives:

Accurate financial projections for any business plan in Pakistan can only rest on a sound factsheet of available industry-specific labor figures. Currently there is no such data available, but with the central repository of the Campus Career Portal and ROZEE.PK’s own database of graduates/professionals these projections can be made in more scientific and calculated ways that minimize business risk and point to untapped labor markets.

Another significant area that the Campus Career Portal contributes to is the equilibrium it sets on the wage rates of the labor market by adopting a single platform through which valuable salary survey data can be acquired.

3. Research Approach

A. Literature Review Summary:

Pakistan is often neglected by large web portals such as Monster, Yahoo and Google. The envisioned Campus Career Portal is designed specifically for Pakistani universities. We have MoU’s in place with leading academic institutions (including LUMS) for the deployment of this technology. This will ensure that a critical mass of useful data is available for our matching algorithms to provide useful results.

Although our primary focus is Pakistan, we will soon be in a position to compete with Monstertrak globally through the traction achieved and technology developed for Pakistan. ROZEE.PK as Pakistan’s #1 Jobsite (Rated Independently by Dawn’s IT Magazine, Spider) is far more competitive with lower costs and more powerful features.

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<thead>
<tr>
<th>Solutions</th>
<th>Strengths</th>
<th>Weaknesses</th>
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<tbody>
<tr>
<td>LinkedIn</td>
<td>• Large database of senior professionals with powerful networking and referral matching features.</td>
<td>• Very poor university/student focus</td>
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<tr>
<td></td>
<td></td>
<td>• Very little localized data or users from Pakistan</td>
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<tr>
<td></td>
<td></td>
<td>• No support for matching unstructured documents such as CV’s or research papers, etc.</td>
</tr>
<tr>
<td>Monstertrak</td>
<td>• Good penetration of US universities</td>
<td>• No support for Professors</td>
</tr>
<tr>
<td></td>
<td>• Integrated with Monster’s</td>
<td>• No support of Pakistani universities</td>
</tr>
<tr>
<td></td>
<td>main job site to attract employers</td>
<td>No support for matching unstructured data such as CV’s or research papers</td>
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<td>---------------------------------------------------------------------</td>
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<tr>
<td>Xing</td>
<td>▪ Very similar to LinkedIn but with a European rather than US focus</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Large database of senior professionals, good networking and referral model</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Very poor university/student focus</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Very little localized data or users from Pakistan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ No support for matching unstructured documents such as CV’s or research papers, etc.</td>
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B. Development / Research Methodology:

Each university’s campus career portal is a separate entity, although running the same underlying code with XML/XSL re-skinning. All data feeds into a central repository shared by all other university campus portals. As we add university campus portals, the richness of our repository increases.

Through their respective interfaces, stakeholders are able to upload CV’s, research papers, degree information, graduation dates, employment status, job descriptions, research proposals, internship opportunities etc. All data is stored in one of two repositories (i) unstructured data and (ii) structured data. Auto-matching algorithms conduct searches on the repositories (and combine the results in many cases) to produce best matches. In this way we can match skilled faculty with industry research requirements and students/alumni with jobs and internships.

Once the central repository, its data inputs via the campus career portal and our underlying matching technology are in place, an infinite number of powerful queries can be run, producing unprecedented analytics.

Structured Data Matching:

Through the various campus career portals, faculty, students, alumni and industry input structured information which can provide hints to further qualify matching algorithms for unstructured queries. Each stake holder fills out relevant structured from as part of being a participant in the university ecosystem. Matching algorithms for structured data are fairly trivial, however, are limited by the exactly what is inputted.

Unstructured Data Matching:

In addition to structured data entered by participants, any relevant document can be uploaded in Microsoft Word, Adobe PDF or text format. Our matching engine converts are uploaded data into text files, dynamically indexes every word in uploaded files and uses a ranking algorithm to find best matches.

The matching algorithm further considers structured data to provide valuable hints.

This unique technology has a successful implication reducing the barrier to entry for students to attach their CV with a click of a button and this helps in increasing the student population in the database as well as significantly enhances the quality of students who are not put off by long data-entry forms to be searched by industry professionals.

Consequently those searching the students can apply a “Google-like” search to the entire database as well as the complete resume text of every student, eliminating the chances of human error in finding an ideal candidate.
XSL/XML Career Portal Templates:

The University Career Portal is developed once with XML API's. Each incremental university added to the system required XSL skinning of their customized portal. In this way, we are able to deeply integrate with the user experience of each institution and extend deeper into their value chains. This differs from what is being offered by Monster.com through their Monstertrak university product. Monstertrak has very little customization options and stands out as a separate site from the University’s main web portal.

This technology also allows us to rapidly deploy identical solutions for many different universities at very low cost and high quality (since the initial code base is already functionally verified).

Clustered/Replicated Servers:

Creating good algorithms is not sufficient. They must massively scale and performance is imperative to usability.

Through our 21 load balanced and replicated servers, we are able to server over 100Mbps instantaneous transfers. Our unstructured matching algorithms have proven to provide results in under 1 second for as many as 2 million unstructured documents per server.

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>CAMPUS CAREER PORTAL TECHNICAL CONSIDERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hosting</strong></td>
<td>ROZEE.PK servers are hosted at Freemont, USA and Germany with leading TIA 942 compliant tier 4 data centers. ROZEE.PK is currently running on 7 servers in our Fremont data centers. Facility features include:</td>
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<tr>
<td></td>
<td>• Approximately 200,000 square feet</td>
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<td></td>
<td>• 24 x 7 x 365 Onsite Staff</td>
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<tr>
<td></td>
<td>• 24 x 7 x 365 Remote Hands</td>
</tr>
<tr>
<td></td>
<td>• 24 x 7 x 365 Access</td>
</tr>
<tr>
<td></td>
<td>• Suites</td>
</tr>
<tr>
<td></td>
<td>• Individually locked cabinets</td>
</tr>
<tr>
<td></td>
<td>• Conditioned and back-up power</td>
</tr>
<tr>
<td></td>
<td>• Custom designed video surveillance of every cabinet</td>
</tr>
<tr>
<td></td>
<td>• Card keyed doors and other onsite security measures</td>
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<td></td>
<td>Backup, redundancy and replication are handled as follows:</td>
</tr>
<tr>
<td></td>
<td>• <strong>Fault Tolerance &amp; Load Balancing:</strong> We have a DNS based Load balanced web server clustering technology that was developed in-house. It is integrated with a monitoring system that automatically takes faulty servers off line in the event of service failure. This ensures very good service uptime. ROZEE.PK for instance is running on 7 servers right now, 4 of which are web servers, 3 database servers and CV search indexers. The Database layer also has 100% redundancy in the shape of replicated slave database servers.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Replication:</strong> The database servers are replicated which allows for immediate switchover to the secondary if the primary fails. Replication allows for up to the minute redundancy of the whole database structure and data. Offline backups are also taken on a 24 hourly basis. Backups</td>
</tr>
</tbody>
</table>
reside on a NAS and are accessible by the support personnel if restoration from a backup is required.

- **Backups:** We have a 3.0 Terabytes (3000 Giga Bytes) Network Attached Storage (NAS) that is being used for backup of all the online resources owned by the company. We produce periodic copies at local office and archive the data to DVDs.

<table>
<thead>
<tr>
<th>Hardware</th>
<th>ROZEE.PK servers are 1u dual-core 64-bit Opterons with 2GB RAM and 160GB x 2 RAID SATA hard drives with dual gigabit Ethernet interfaces.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software</td>
<td>ROZEE.PK is built using open-source LAMP architecture running, Linux, Appache, MySQL and PHP. Once master database is replicated over multiple slave databases for scalable performance. Each server contains an identical replica of source code for redundancy and scalability.</td>
</tr>
<tr>
<td>Load-Balancing</td>
<td>Load balancing is achieved via running redundant concurrent servers. Traffic is equally distributed amongst these servers based on an intelligent software switch whose source is completely in ROZEE.PK’s control to make any tweaks as needed based on traffic pattern changes.</td>
</tr>
</tbody>
</table>

ROZEE.PK’s load-balancing parameters and their availability for Campus Career Portal.

<p>| Table 2- ROZEE.PK Load Balancing parameters |</p>
<table>
<thead>
<tr>
<th>PARAMETERS</th>
<th>AVAILABILITY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dual Global Network Internet access capacity on wired and wireless IP Network with redundant, path-diverse entrances and exits.</td>
<td>Yes</td>
<td>Multiple 10 Gigabit Ethernet and OC12 Backbones at the ROZEE.PK data center allow redundant path-diverse entrances and exits.</td>
</tr>
<tr>
<td>Redundant, uninterruptible power sources and backup systems</td>
<td>Yes</td>
<td>We have a 3.0 Terabytes (3000 Giga Bytes) Network Attached Storage (NAS) that is being used for backup of all the online resources owned by the company. We produce periodic copies at local office and archive the data to DVDs</td>
</tr>
<tr>
<td>Redundant, uninterruptible concurrent Servers availability.</td>
<td>Yes</td>
<td>The Redundant, uninterruptible concurrent servers availability ratio varies between 6:1 and 4:1</td>
</tr>
<tr>
<td>Automated hot and cold on site and offsite Servers and Data backup for Disaster Recovery and Fault Tolerance.</td>
<td>Yes</td>
<td>Automated hot and cold onsite and cold offsite Servers and Data backup for Disaster Recovery and Fault Tolerance.</td>
</tr>
</tbody>
</table>
Unique ROZEE.PK Search Technology

ROZEE.PK uses a state-of-the-art full text search facility that allows employers to search and match on any keyword in a job seeker's CV. This Google-like search facility provides huge gains to both job seekers and employers. Job Seekers don't have to spend a long time filling-out lengthy forms to re-enter their CV information; they simply upload an existing CV in Word or any other format. Each day, all new uploaded CVs' data is indexed which then becomes available for employers.
This highly advanced search technology also benefits employers because they can use familiar Google or Yahoo like searching facility by inputing any keyword that they are searching for, and be sure that a CV containing those words will be displayed in the result set.

Speaking more technically, this indexing and search technology combines structured and unstructured data into indexes and allows searches that can specify criteria based upon both structured and unstructured datum at the same time. It makes use of a ranking algorithm that gives more weight to structured matches and also takes into account the unstructured matches to determine the better matches out of the structured matches.

The search is implemented in C language for speed and makes use of facilities like memory mapped files to achieve sub-second retrieval times on index sizes exceeding 4GB in size.

C. Key Milestones and Deliverables:

The information given in this table will be the basis of monitoring and release of funds by the National ICT R&D Fund.

<table>
<thead>
<tr>
<th>No.</th>
<th>Elapsed time from start (in months) of the project</th>
<th>Milestone</th>
<th>Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1/3 to 1/6 (3 Months)</td>
<td>Beta Site UI Design</td>
<td>Beta Site UI Design Prototype</td>
</tr>
<tr>
<td>2.</td>
<td>1/6 to 1/9 (3 Months)</td>
<td>Beta Site Complete</td>
<td>Complete Live Site</td>
</tr>
<tr>
<td>3.</td>
<td>1/9 to 1/3 (6 Months)</td>
<td>Integration of 45 Institutes</td>
<td>Case Studies/Traffic Statistics of live integrated site</td>
</tr>
<tr>
<td>4.</td>
<td>1/3 to 1/6 (3 Months)</td>
<td>Integration of 20 Institutes</td>
<td>Case Studies/Traffic Statistics of live integrated site</td>
</tr>
<tr>
<td>5.</td>
<td>1/6 to 1/9 (3 Months)</td>
<td>Integration of 20 Institutes</td>
<td>Case Studies/Traffic Statistics of live integrated site and figures on total graduate database in Pakistan</td>
</tr>
</tbody>
</table>

4. Benefits of the Project

A. Direct Customers / Beneficiaries of the Project:

Industry productivity increases from direct access to local universities where the process of recruitment and selection is minimized though Online HR productivity tools on ROZEE.PK’s platform.

Academic institutions focus on current research and are forced to compete at international
technology and communication standards driven by industry pressure to produce local resources. Higher Education institutions in Pakistan currently have no separate body groomed to tailor to industry’s training and development updates but can not really develop this essential component unless they implement constant commitment to knowledge management.

Far better than serving unemployment benefits to its populous governments get 2X the results in terms of economic contribution by improving information flow to those graduates who are job seeking or transitioning. Government bodies committed to welfare and labor can simply access not only a job requirements repository but as the country’s largest employer, it can recruit directly from the database of qualified and skilled jobseekers.

Graduates and diploma holders most importantly benefit by getting for the first time, a single platform on which they are presented a comprehensive snapshot of Pakistan’s recruitment options. They also get filtered job searching tools from which they can eliminate job postings that are not relevant to their field of expertise. They are not only jobseeking but also getting fetched by proactive industry recruiters who are keen on beating competition in a saturated job market.

B. Outputs Expected from the Project:

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>A. STUDENT/GRADUATES OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to internships posted by employers</td>
<td>Students will have easy access to a centralized web page where all internships will be posted. Students will have two options for identifying the internship that best suits their background. 1) Search internships: They will have the ability to do pinpoint searches like Google to find the right matching internship. This will yield a precise result set in a much more efficient way than clicking and reading through different internships simply based on titles. 2) Browse Internships: If the students prefer to browse for internships instead of searching, they will still have the option of viewing all jobs.</td>
</tr>
<tr>
<td>CV Builder and CV Upload</td>
<td>ROZEE.PK will offer students unique tools that will help them quickly create professional looking CVs to capture employers’ attention. In addition to the CV creation tool, students will be able to easily upload their existing resume in Word or any other format to the job portal, thus saving them the hassle of having to fill out lengthy CV-builder forms.</td>
</tr>
<tr>
<td>CV distribution to employers</td>
<td>Students will have two ways to gain access to employers. First way will be to simply apply for internships posted by them. The second way will be to upload their CVs and allow employers to proactively find them through a CV Search Engine.</td>
</tr>
<tr>
<td>Email Alerts for internships</td>
<td>Students will have the ability to subscribe for internships alerts. Students will be able to create sophisticated job alerts specifying keywords, salary expectations, location and other criteria that will match the kind of internship they are looking for. SMS Alerts: In addition to getting the alerts via email, students will have the option of getting alerts via SMS on their cell phones. This is currently a paid</td>
</tr>
</tbody>
</table>
The new web site will be sophisticated in nature, meeting all job searching needs of students and all hiring requirements of employers. ROZEE.PK has the largest jobs portal in Pakistan. Our user interface (UI) experts that have created one of the most visited jobs portal, will create a similar UI experience for the Internship Portal.

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>B. INDUSTRY/EMPLOYER OUTPUTS</th>
</tr>
</thead>
</table>
| Internship/Job Posting | Employers will have ROZEE.PK’s advanced job posting features at their disposal. To maximize exposure to get best candidates for these postings, these internships will automatically appear on the main ROZEE.PK site in addition to the Portal.  
**Note:** Research has shown that employers get 3 times more applications from ROZEE.PK than from the portal. Internship posting features will include:  
• Specification of upfront filtering criteria so that only qualified candidates can submit an application. This will reduce unwanted CVs in employers’ Inboxes  
• Rich-text capability in the jobs details section to highlight key features of an internship  
• An online test that the candidates will be asked to complete prior to applying for the job. This is a hugely popular feature as it greatly helps identify most qualified applicants, as those are the ones with highest test scores |
| Research Requirements Posting | Industry will be able to define using a blog post various potentially profitable investment ideas that require research proposals to be floated from academia. Industry can then fund using fellowships and grants the most viable proposal from leading institutions. |
| Candidate Selection | Employers will be able to view all applicants who have applied for their internships. Project Team can extract key fields from a CV. These include education, experience, location, etc. These key fields are provided as a separate view for employers as a quick synopsis via one easy click of a button. This is of huge benefit to employers as they will be able to quickly get to key applicant information without having to wait for CV to load and then having to go through the entire resume. |
| Candidate Search | Advanced CV Search option will empower employers to efficiently get to those students that best meet their job criteria. Employers will be able to specify key fields that will enable them to surgically get to those candidates that have the right qualifications for the opening. ROZEE.PK’s CV Search is a highly advanced piece of technology built under the guidance of a technologist who has years of experience at Intel Corp, where he worked on improving processing power and performance of Intel chips. |
| Advanced HR tools | Employers will have potential paid access to ROZEE.PK’s full suite of |
recruitment tools currently enjoyed by top brands in Pakistan. These include:

• Advanced Applicant Filter
• Short listing and Foldering
• A complete HR Workflow Engine

C. Organizational / HRD Outcomes Expected:

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>PLACEMENT OFFICE OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student CV Management</td>
<td>Placement officers will not have to manually edit student resumes and upload them on the web site. Students will be able to upload their resumes directly on the web site. Project Team can choose to approve the CVs prior to uploading but this will become an easy task as the initial formatting and editing will be done by students and alumni.</td>
</tr>
<tr>
<td>Rights Management</td>
<td>The Project Team will be able to give more targeted rights to employers, as desired, so that if they don’t have any requirement for, say, candidates who have a MS in Computer Science, then they will not have access to that program. Project Team will always have the option of granting rights to select employers to view all program folders. The site will have Role Based Security, user management. Thus, users will only be authorized to view data according to their access level.</td>
</tr>
<tr>
<td>Account creation and management</td>
<td>Project Team will approve new employer accounts. They will also approve jobs posted by employers. Although Project Team will have the option of granting auto-job approval rights to select employers or have the ROZEE.PK administrators approve companies and jobs for them.</td>
</tr>
<tr>
<td>Testing and short listing students</td>
<td>Project Team will be able to post test with the jobs that they approve to be posted on the portal and pre screen applicants. They will also have the option to filter candidates, shortlist them for interviewing and schedule interviews.</td>
</tr>
</tbody>
</table>

D. Technology Transfer / Diffusion Approach:

There are three key phases in the technology transfer process of the Campus Career Portal’s Beta Site. The primary interaction is between the Project Manager and the Placement Office or the Career Development Office (CDO)

1. Requirements Phase
   Discovery Meeting
   Define Portal Requirements for All Audience (CDO, Employers, Students/Alumni)
   Review Finalized Requirements Document

2. Design Phase
   Create Portal Prototype
   Prototype Review Meeting
   Finalize Design for All Portal Pages
3. **Implementation Phase**

Implement Portal Features
Review Complete Portal
Incorporate Feedback & Launch

4. **Launch/Roll-out Phase**

Upload software on centralized hosted servers.

In the integration phase for 85 institutions, the interaction between Product Manager/Team Lead and the CDO is further streamlined because the requirements gathering is limited to understanding the cosmetic customization of the front page of the Campus Career Portal. The site goes live before two weeks end.

**Implementation Phase -- Software/People:** The underlying software powering the engine in the background for each Campus Portal will be centralized code. This centralized software will provide the power to aggregate data and provide centralized reporting as needed.

What will change from one university implementation to another will be the unique presentation layer software that will be tailored to meet the requirement of each educational institution. The details of which has been included in the project plan under University Integration Plan. This section also includes details about the people that will be involved for creating this software for each university.

**Launch Phase -- Software/People:** ROZEE.PK’s Network Administrators have the authority and rights to upload code to centralized servers from where the Campus Portal of each university will be served. The software implemented and stored on these servers in the implementation phase will be uploaded to production-level servers by the Network administrators for individual university launch phases.

5. **Risk Analysis**

A. **Risks of the Project:**

(Please mark ☑ where applicable) Low Medium High

- Technical risk ☑
- Timing risk ☑
- Budget risk ☑

A1. **Comments:** Provided the disbursement plan is matched with the achievement of milestones there is a very high probability of the project completing as planned since this plan is technically in a replication success phase because ROZEE.PK has launched a Career Portal across industry in a similar fashion and also integrated it successfully in reasonable time.

6. **Contractual Matters**

A. **Contractual Obligations under this Project:**

There are no third party contractual obligations for the length of this project
B. Competent Authority of the Principal Investigator (Organization).

<table>
<thead>
<tr>
<th>Name:</th>
<th>Mr. Monis Rahman</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designation:</td>
<td>Chairman &amp; CEO</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:monis@naseebnetworks.com">monis@naseebnetworks.com</a></td>
</tr>
<tr>
<td>Date:</td>
<td>December 18th 2007</td>
</tr>
<tr>
<td>Signature:</td>
<td>____________________</td>
</tr>
</tbody>
</table>

Annexure A – Curriculum Vitae

MONIS RAHMAN
(PROJECT DIRECTOR)

PROFILE:
Entrepreneur with 15 years of experience starting business ventures ranging from chip design companies to Internet startups. Expertise lies and building and managing teams using cutting-edge technologies, structuring win-win deals and leveraging global talent.

EDUCATION:
MS Computer Engineering,
Stanford University, Palo Alto USA, Dec 1996
SITN Program
BS Electrical & Computer Engineering,
University of Wisconsin - Madison, Madison USA, Dec 1993

EMPLOYMENT HISTORY:

- **Chairman & CEO**
  Naseeb Networks, Inc., Lahore, Pakistan, Jul 2003 – Present
  Founded Naseeb Networks, Internet new media company focused on deploying web based products to niche and emerging markets. Raised initial seed funding, reach profitability within six months. Built world class offshore team in Lahore to spearhead engineering, customer support, operations and marketing. Launched three products: Naseeb.com, the world's largest Muslim social networking site; ingPakistan.com, calling card and telephony products; and ROZEE.PK, Pakistan's leading job site.

- **CEO**
  Crestech, Mountain View, USA, Nov 2000 - Feb 2003
  Founded and managed Crestech, a chip design consultancy focused on providing outsourced engineering services including ASIC design, FPGA design, Chip synthesis and timing and verification.

- **GM West Coast & VP Engineering**
  ParentWatch.com, New York, USA, Jun 2000 - Sep 2000
  Retained for 90-day transition after ParentWatch acquired my company eDaycare.com. Many bi-coastal team of engineers of a 100-person team. Transitioned technology, integrated processes and participated in hand-off activities.

- **Co-Founder & CTO**
  eDaycare.com, Santa Clara, USA, Mar 1999 - Jun 2000
  Co-Founded eDaycare, a child care services Internet application provider. Raised $2.5MM in venture funding, built a world class team, and negotiated the company's acquisition 13 months later. The company provided child care monitoring through Internet based webcam streaming, a search engine for 113,000 daycare centers in the US and web services to childcare providers.

- **CEO**
  Crestech, Mountain View, USA, Feb 1998 - Mar 2000
Founded chip design consulting company. Provided outsourced engineering services to clients such as National Semiconductor, Alliance Technology, Poseidon (now Conexant) and others.

- **Senior Design Engineer**  
  **Advanced Micro Devices, Sunnyvale, USA**, Jan 1997 - Feb 1998

  Designed AMD's Athalon processor bus interface called Socket2000 (now Hypertransport) by studying and engaging with DEC Alpha designers and modifying for x86 compliance. Designed the bus unit on a multi-processor chipset to implement Socket2000.

- **Senior Design Engineer**  
  **Intel Corporation, Santa Clara, USA**, Jan 1991 - Feb 1997

  Architected and designed the branch prediction unit for Intel's Itanium microprocessor. Secured three patents for innovative work which improved the overall chip performance by over 5% on branch intensive workloads. Spear headed in-house formal verification research for Itanium design team.
SAMEER SIDDQUI  
(JOINT PROJECT DIRECTOR/ PROJECT MANAGER)

PROFILE:
Senior executive with over 16 years of professional experience managing large teams and complex, multi-million projects for renowned U.S. corporations with a solid academic foundation from prestigious U.S. universities, getting a B.S. in Computer Engineering complemented with an MBA in MIS. In addition to technical expertise strengths also include excellent managerial skills honed in all aspects of people management, team building, client relations, project management and product development.

RECENT ACCOMPLISHMENTS:

Vice President of Products  
Naseeb Networks Inc.

Oversee, manage and coordinate operations of all Naseeb Networks products with the goal of facilitating the creation of a super successful company that produces world class offerings. This includes responsibility for overseeing the business goals of Naseeb Networks’ consumer websites, leading efforts to drive additional traffic to the sites, assist in developing new businesses around advanced media products, and to develop and grow the overall revenue of these products. This is a key business and implementation manager position for all company products and reports directly to the Chief Executive Officer.

Prior to coming to Pakistan, I was a senior manager in charge of all applications development in AOL’s flagship product: Email. Prior to managing the Email group, I have managed AOL’s three other key products: Online Advertising on AOL online properties, AOL Chat System and AOL Members’ homepages (AOL Hometown) product.

EDUCATION:

MBA, Management Information Systems, George Mason University, Fairfax, VA, 1997  
BS, Computer Engineering, University of Alabama, Tuscaloosa, AL, 1988

EMPLOYERS:

Internet Start-up: NASEEB NETWORKS, INC., Lahore, Pakistan; August 2006 – present.  
Media/Online Svc Co.: AMERICA ONLINE TIME WARNER, Dulles VA; April 1999 – August 2006.  

EXPERIENCE:

Naseeb Networks, Inc., Lahore, Pakistan; August 2006 – Present.

As the V.P. of Products at Naseeb Networks, my duties include, managing, directing and mentoring Product Managers to meet business goals, increase traffic/usage, define and implement feature enhancements and ensure excellent customer experience. I continually study our markets, our member-base and other data points to define a growth opportunity for our products.

I also play a strong operational role of hiring outstanding talent and mentoring employees. My outward responsibilities include, building strong relationships with external partners, vendors and key customers to assist in business development activities aimed at meeting the business objectives of our products.
Ultimately, I assume responsibility with the CEO of providing overall leadership to steer the company on the path of success.

**America Online (AOL), Dulles, VA; April 1999 – August 2006.**

Continuing to contribute as a senior member of a management team responsible for providing solutions to AOL members and partners in the form of enhancing members’ email experience, hosting members’ homepages, facilitating online Chat sessions and supporting partners’ online advertising.

In all these areas, successfully led and completed numerous projects from inception to finish. Conducted feasibility studies with industry analysts; held requirements gathering sessions with marketing and product managers; facilitated architectural and system design discussions with technology architects; oversaw product development; interfaced with Quality Assurance (QA) management; and dealt with Operations group as the product went into production. Other duties included career development and mentoring of employees, recruiting new members and working with executives in AOL Technologies and Marketing to strategize about organizational growth and vision.

**Proven track record of Success:** Within a year of taking over responsibility of AOL Hometown in 2002, product stability increased from 85% to a sustained level of 99% with advertising revenue for Hometown increasing to $8 million for that year. As Chat manager, orchestrated launch of AOL Chat on the Web so that it could be embedded on any HTML content, with revenue share estimated to be $10 million in 2005. And now, in Mail this year, launched such high-visibility products as, free AIM mail for non-AOL members, ability to search for any term on mail saved on AOL (rival Yahoo announced their version 2 weeks afterwards) and the ability to allow AIM members to send mail seamlessly within AIM client without logging into their mail.

**Global reach & visibility:** AOL Mail receives astronomical proportion of usage with just the spam messages being blocked ranging close to 1 billion a day – with roughly 350 legitimate million emails being delivered to people’s mailboxes. There are currently 21 million members’ homepages and roughly 2 million AOL members use the Chat product every day. These products exist in over 15 different international brands.

**Additional assignments & successes:** Prior to current charge, manager for Advertising System within AOL’s technology division, managing a team of senior developers and project/product managers for AOL’s online Ad Systems. Ad System is responsible for supporting end-to-end advertising solutions from Advertising sales to Ad delivery, serving 5.2 billion ads per day to online users of AOL service and web properties (CNN, Netscape, AOL.com, etc), at a rate of 35 thousand transactions per second.

Over $1 billion revenue was generated from advertising for 4th quarter in 2002 -- my last quarter with that group. It was one of three main revenue streams for AOL.

**GLOBAL ONE, Fairfax, VA; January 1997 – April 1999.**

Successfully managed a high-visibility, time-sensitive, workflow project in Global One worth over $10 million. The project entailed creating a global, multi-server Call Center application in a totally distributed environment. Produced an on-time deliverable that was very well received by the user community and upper management. Used cutting-edge Internet technologies to create an Intranet application to be used to track customer telephony problems all over the world. Interfaced heavily with a French company for different aspects of this project.

Managed a large-scale Trouble Management project in Global One. Replaced an unwieldy third-party middleware with an in-house, robust system that utilized state-of-the-art technology to transfer real-time data across Sprint’s and Global One’s ticketing systems. Interacted with individuals from all over the country working in different departments.

Developed different client/server applications from scratch for court system of Nashville, Tennessee. These projects required extensive client interaction, being involved in the full product life-cycle -- from development to training users in individual applications. Net revenue generated from these applications was $8 million.

Created a service over the Internet that provided a means for entrepreneurs to showcase their ideas in the form of their business plan summaries to venture capitalists. The financiers paid a nominal amount to obtain more detail and contact information about the business plan they liked.

Independently, wrote a business plan for a startup company in Russia, trying to set up a franchise in St. Petersburg. Explored financing options for the company by communicating with different investment companies.

INTERMARKET ASSOCIATES Inc., Fairfax, VA; July 1996 - October 1997

Founded and worked on a part-time basis for a start-up company called InterMarket Associates, Inc. (IMAC) with two other fellow MBA graduates. IMAC, an Internet Strategy consulting company, focused on Electronic Commerce and web site development. My role was to help develop marketing strategies and to help provide technical support while writing proposals.

Worked on a business proposal to introduce Internet to the elementary and junior level classrooms in the Island of Aruba. Went to Aruba to do a feasibility study and to meet the client, the government of Aruba.


Led a team of consultants and in-house staff to re-engineer a manual accounting process. Conducted initial project analysis with the accounting department, prepared a new system design, and implemented the final product. In conjunction with other corporate assignments, this project helped the company grow from a revenue base of $2 billion to a current figure of over $5 billion.


Evaluated and implemented business solutions at various client sites, in different vertical markets (Finance, HR), to maximize benefits within given cost, schedule, and risk constraints. Provided systems integration across multiple platforms. Almost all projects entailed full System Development Life-Cycle (SDLC) approach with the project life-span typically ranging from initial client meetings to assessing business needs, to full implementation of a strategic and technical solution.

Met with client executives and managers to discuss and understand their business needs. Discussed new solutions, modifications to current systems, and probed potential drawbacks and shortcomings.


Solely responsible for maintaining and enhancing a fire-alarm detecting software that was deployed in United Nations and Mobil headquarters in New York. The software was created in C and Assembly language, 8086/8088. Duties included being the primary contact for all software related issues, working on client locations for troubleshooting and installing upgrades, and interfacing with new potential clients.
ABBAS AHMAD  
(SENIOR WEB ARCHITECT)

EDUCATION AND QUALIFICATIONS:
PIMSAT, Dec 2003  
MSIT  
Preston University, Dec 1998  
MS-CS  
University of the Punjab, Jun 1997  
BSc.

PROFESSIONAL EXPERIENCE:

Naseeb Networks, Lahore, Pakistan  
Manager Network Operations, Jun 2005 - Present  
Managing a team of three people responsible for upkeep of 18 servers being used in different roles for websites like.

www.rozee.pk  
www.naseeb.com  
www.ringpakistan.com  
www.eidmubarak.com

Techno-Ed Pvt. Ltd., Lahore, Pakistan  
RedHat Consultant & Instructor, Mar 2004 - Jun 2005  
Got trained for RHCE at RedHat India's Delhi Office. Worked as a Linux consultant with Techno-Ed's the sister company (OraTech) for a number of Linux deployments.

Conducted a corporate training for Honda's IT Department.  
Asia Pacific Institute of IT, Lahore, Pakistan  
Asst. Manager Technical

Asia Pacific Institute of IT, Lahore, Pakistan  
Assistant Manager Technical, Oct 2002 - Mar 2004  
Responsible for managing a network of over 200 nodes in a mixed environment running Windows and Linux. Also deployed and maintained GIMS(ERP developed by APIIT Malaysia) in collaboration with my Malaysian counterparts.

APTECH, Lahore, Pakistan  
Faculty Member, Jan 2001 - Oct 2002  
Worked as a full time instructor for courses relating to the whole spectrum of the three year APTECH Diploma(ACCP).

Specially focused on projects relating to Linux configuration & Java Network Programming, Application Servers (JBoss etc.), EJBs. Later on, I worked with the APTECH's in-house software development team on a number of projects based on Microsoft .Net framework. The projects involved made good use of SOA.

Preston University, Lahore, Pakistan  
Faculty Member, Jan 1999 - Dec 2000
Involved in delivering Computer Architecture, Networking and related core courses for BS and MS Computer Science Students.

PROJECTS
Implemented as a Windows Service on Windows Server 2003 in VB.Net.


#
Makes the IP Addresses of different servers rotate depending on which machines have the minimum load. Implemented in C on Linux. In use on www.naseeb.com


A Transparent, auditable balloting system developed in Visual BASIC.

Involved state of the art random number generation logic implemented in Assembly Language for speed.

MT85 - Completed Under: Preston University, Dec 1999
Designed and developed an 8085 based Microprocessor Training System and wrote a monitor program for it to make it functional.

MDDS (Motion Detected Digital Signage) - Aug 2004
The system was designed to display a series of Ads upon detecting human movement in front of the screen fixed in a shopping mall.

Home Automation Project - Apr 2004
The project involved providing remote control and monitoring of household appliances using a web-based interface, using a home PC as the gateway to the Internet. The communication between the controlled devices and the gateway is done through a custom pro

Comprises of various techniques for extracting text from uploaded CV documents, followed by creation of full text search indexes. Provides general and targeted advanced search facilities on the employer site. http://hiring.rozee.pk

ADDITIONAL SKILLS AND EXPERIENCE:
Linux
MySQL
Assembly
PHP
Apache
Java
Python
ISA Server
SQL Server
Visual Basic
.Net
Firewall
**Mian Shafiq-ur-Rehman**
(SENIOR WEB DEVELOPER)

**Professional Summary**
ZCE (Zend Certified Engineer) having more than five years of extensive experience in web development, project management Analysis & design engineering and implementation. Moreover good communication and project management skills.

**Professional Experience**

<table>
<thead>
<tr>
<th>Company</th>
<th>Naseeb Networks Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>September 2003 - Till Date</td>
</tr>
<tr>
<td>Position</td>
<td>Sr. Software Engineer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company</th>
<th>AmeerSoft (Pvt.) Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>April 2001 - September 2003</td>
</tr>
<tr>
<td>Position</td>
<td>Web Developer</td>
</tr>
<tr>
<td>Project # 1</td>
<td>Educator of IT Education, <a href="http://www.gotoeite.com">www.gotoeite.com</a></td>
</tr>
<tr>
<td>Description</td>
<td>The site is built on MLM (Multi Level Marketing). Basically this is a referral program that based on Binary Level Marketing. The site has a heavy Administration System. Facilities are as follows:</td>
</tr>
<tr>
<td></td>
<td>• Real Time joining of people.</td>
</tr>
<tr>
<td></td>
<td>• Real time PIN and SCRATCH No generation.</td>
</tr>
<tr>
<td></td>
<td>• Authentication of Users.</td>
</tr>
<tr>
<td></td>
<td>• Runtime Sub-Domain creation.</td>
</tr>
<tr>
<td></td>
<td>• Online Report Generation using PDF Library.</td>
</tr>
<tr>
<td></td>
<td>• GUI Binary Tree.</td>
</tr>
<tr>
<td></td>
<td>• Administration for Head Office</td>
</tr>
<tr>
<td></td>
<td>• Administration for centers in almost every city of Pakistan.</td>
</tr>
</tbody>
</table>

| Project # 2                   | Wako MLM Internet Cafe, www.wakomlm.com                                              |
| Description                  | Same as gotoeite.com                                                                |

| Project # 3                   | A General purpose web portal related to Pakistan, www.sohnapakistan.com              |
| Description                  | This is a portal site, which is related to Pakistan. It is under construction 90% of work has been completed. I have prepared the main design layout, site architecture and features like Discussion Forum, Web Chat, Web directory, matrimonial service, currency converter. |
I am also the webmaster, Database administrator of the virtual server for this portal site Sohnapakstan.com. And I am managing all the virtual hosts (sub domains) of this site.

**Task 1**

Develop an online Matrimonial Service  
http://matrimonial.sohnapakistan.com

**Description**

Online matrimonial service; A very important part of the Portal Site. Basic service for Matrimonial is to provide or to facilitate the users to publish their profiles to find a suitable partner for Marriage. This web application has lot of features including CRON Manager, Complex Search system, Messaging System, MIS (Management Information System), secure authentication, Picture Uploading, MD5 Encryption and Email Sender etc. Website is developed in PHP and MySql Database on Linux plate form with Apache web server.

**Task 2**

Installation and configuration of Discussion Forum (phpbb)  
http://forum.sohnapakistan.com

**Task 3**

Develop a Currency Converter  
http://www.sohnapakistan.com/currency/

**Description**

This currency converter can convert almost 164 Currencies to any other currency. It is purely independent application and we don’t need to update the information on daily bases, because it is managed by the Socket programming and it gets relative information form he site (www.oanda.com).

**Task 4**

Develop an Online Chat  
http://chat.sohnapakistan.com

**Description**

Online Chat is an chat application for JavaScript compatible web browsers made in PHP.  
- Multiple rooms.
- No browser flicker between message translations.
- Web based room management.
- Database backend.
- Private messages.
- Emotions and text formatting
- Multiple language support

**Task 5**

Develop an Online Mailing List  
http://www.sohnapakistan.com

**Description**

The mailing list has the following features and facilities.  
- Administrator or Webmaster can send emails to subscribers.
- Subscribers can subscribe or unsubscribe from the mailing list automatically.
- The mailing list has ability to send mail to some selected groups.

**Environment**

PHPCoder, Dream weaver UltraDev, Fireworks, MySql, Windows 2000 Professional, Red Hat Linux Server

**Project # 4**

Around The World Immigration consultants
Responsibilities: The Development of the Network of web sites

Position: Web Developer/Site Architect

Description: Project is developed for consultants who provides consultancy for immigration. Site gives basic information about Canada, New Zealand, UK, Currency exchange rates, Latest News, Discussion forum. User can apply online for free assessment. Site is also equipped with searching facility. Search engine is based on meta search. It takes the input from user evaluates it and responds in proper manner. Customized error messages are generated if certain key word is not found or misspelled. My main responsibility is to develop the search engine, random image generation on main page on each page refresh and also design and architect the site in such way that it looks more attractive, simple and descriptive with its color and appearance. Server side scripting is done in PHP with Client side JavaScript and HTML. MySql is used for backend database on Red Hat Linux plate form.

Environment: PHPCoder, Dream weaver Ultradev, Red Had Linux Server, Windows 2000 professional, MySql

Project # 5: Design and Development of Different Sites

Responsibilities: To manage all the Tasks as Team Leader

Position: Developer

Description: The Static websites developed under my supervision.

Environment: PHPCoder, Dream weaver Ultradev, Red Had Linux Server, Windows 2000 professional, MySql

Company: Web Flock, Lahore.

Duration: Jan 2000 – April 2001

Project # 1: Shopping Cart

Responsibilities: Catalog Management System, Sales and Order Management

Position: Web Developer

Description: A product, which can be added to any Site. It also contain full-featured Administration program. Each user is tracked online through session handling.

Environment: Windows NT, Apache Web Server, HTML, JavaScript, PHP, MySql

Project # 2: Order Tracking & Management System

Position: Web Developer
| Description | It provide online service for your customers to check the status of their order or shipment, this application can help you run a paperless tracking system available 24/7 to any customer anywhere in the world. |
| Environment | Windows NT, Apache Web Server, HTML, JavaScript, PHP, MySql |
| Project # 3 | Web Polling and Survey Reports |
| Position | Web Developer |
| Description | Small application for web polling, which takes user input as Vote and calculate. It keeps a check on IP address and don’t allow user to vote more than one in one session. |
| Environment | Windows NT, Apache Web Server, HTML, JavaScript, PHP, MySql |
| Project # 4 | HTML Editor For Beginners |
| Position | Analyst / Programmer |
| Description | As it is almost clear by the Project Name that, With this Html Editor, anyone who knows a little bit about html can develop his/her own website with a few clicks. I have provided many advanced technologies of HTML like Tables, Frames and Forms. I have used the WYSWYG technique. I completed its advanced features using Windows APIs and ActiveX Controls. |
| Environment | Visual Basic 6.0, Microsoft Access, Microsoft Windows 9x, DAO |
| Project # 5 | Desktop Database Application For Cant Inter School System. |
| Position | Analyst / Programmer |
Description

Cant Inter School System contains following Sub Systems:

- Student’s Admission System,
- Payroll System,
- Student’s Examination System,
- Teacher’s Evaluation System and
- Accounting System (Dues & Daily Expenses)

Teacher’s Evaluation System & Student’s Examination System is the major workhorse of this project. There are many types of tests and exams. All these tests and exams are related to a particular Student as well as Teacher. Progress of the Student and Teacher is evaluated through these results. As every year Student changes his class, his subjects also change with it the subject teachers. There is a possibility that teachers are changed for some subjects. So the subject’s test results should go to that teacher’s evaluation criteria. All of these complexities are handled in this project.

Environment

Visual Basic 6.0, Microsoft Access, Microsoft Windows 9x, DAO

Freelance Projects

<table>
<thead>
<tr>
<th>Project # 1</th>
<th>Association of Pakistani Physicians of North America <a href="http://www.appna.org">www.appna.org</a></th>
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</thead>
</table>

Description

- Discussion forum: Developed a discussion forum. User can post their messages against different topics provided on site. Also developed Web based chat system.
- Session tracking and authentication system: To track registered users an to maintain user and admin level session. The user is authenticated through PHP 4.0.5 advanced session management system.
- Search: Two types of searches are provided. First is Normal search and other is advance search. Both searches are purely database searches.
- Web Chat: Web Chat is a chat application for JavaScript compatible web browsers made in PHP and MySql.

Management Information System: Administrator of the site can manage, edit, delete and create new users. All the Systems are administrated through this MIS.

All above systems are for registered users only.

Environment

PHPCoder, Dream weaver UltraDev, Fireworks, MySql, Windows 2000 Professional, Red Hat Linux Server

Responsibilities

- Reported to IT manager. My responsibilities are to understand the business requirement from different business units. Analyze them and convert those requirements in flow diagram and also analyze for database normalization and convert into entity relation diagrams. Then I have to delegate this work to my team and programmers, who are working in my team, have to monitor their work at daily bases. Also have to provide the daily and weekly reports to IT manager. At the end of all testing have to upload on live server.
- Provide customer support for any problems reported/request received. Prepare progress report and track problems surfaced on a weekly and monthly basis.
- Administer, install, configure, provided daily operational support, trouble shooting and optimize Java server for the web users as well as provide the security to reduce unauthorized hacking attempts.
- Co-ordinate and conduct backend applications testing for a data warehouse project. Key responsibility is to analyze the problems encountered and provide guidance to the developer in resolving the problem.
- Responsible for understanding the interfacing from front end to middleware to back end Hosts.
- Trouble shooting and customer problem solving on spot is also including in my responsibilities.
- Responsible for Technical and User Documentation, Documentation for workflow and process changes and as well as user training.
- Currently I am leading a team of 4 programmers and 2 Graphic Designers.

**Education**
Bachelor in Computer Sciences
The National College of Computer Science 29/B Gulberg Ill Lahore, Pakistan.
Diploma in ORACLE (Forms & SQL) University of Engineering & Technology Lahore, Pakistan.
PHP 4.0 Certified Professional www.brainbench.com
Windows 9x Certified Professional www.brainbench.com

**Professional Skills**
**Tools & Technologies** PHP, JavaScript, AJAX, SOAP, Dreamweaver MX, Load balancers, Replication
Databases MySql, Oracle, MS-Access
Servers Internet Information Server 4.0/5.0, ORACLE Database Server, Apache Web Server, MySql Server
Network 10/100 Base TX Ethernet Network.

**Personal Information**
Father’s Name Muhammad Ishaq Nasir
NIC No. 35101-2494218-1
Marital Status Married