# Technology Fee Award Budget Report

**Part 1 of 2: Budget Summary**

<table>
<thead>
<tr>
<th>NDSU ORGANIZATION OR UNIT</th>
<th>Award No.: #1205</th>
<th>Fund 18565</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science and Operations Research</td>
<td>Report Period:</td>
<td>Fund 18565</td>
</tr>
<tr>
<td>PROJECT DIRECTOR(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anne Denton</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## A. Salaries and Wages (Number)

<table>
<thead>
<tr>
<th>Number of Months</th>
<th>FUNDS REQUESTED</th>
<th>FUNDS AWARDED</th>
<th>FUNDS EXPENDED</th>
<th>BUDGET BALANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Staff ()</td>
<td>$600.00</td>
<td>$0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Graduate Students ()</td>
<td>$0.00</td>
<td>$0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Undergraduate Students (1)</td>
<td>$3,000.00</td>
<td>$3,000.00</td>
<td>$4,075.40</td>
<td></td>
</tr>
</tbody>
</table>

## B. Total Salary and Wages (Sum A.1., A.2., and A.3.)

$3,000.00 $3,000.00 $4,075.40

## C. Fringe Benefits

$60.00 $60.00 $81.01

## D. Total Salaries (Sum B and C)

$3,060.00 $3,060.00 $4,156.41 $-1,096.41

## E. Equipment (List each item)

- Galaxy S11 tablet (unlocked) $600.00 $600.00 $438.77
- iPhone4 (unlocked) $600.00 $600.00 $698.00
- Asus Transformer $450.00 $450.00 $434.07
- iPad2 $629.00 $629.00 $479.00
- Prepaid data service (AT&T) $300.00 $300.00 $5.75
- Server $3,244.00 $3,244.00 $2,671.00

## F. Total Equipment (Sum items in E.)

$5,823.00 $5,823.00 $4,729.59 $1,096.41

## G. Materials and Supplies (List each item)

<table>
<thead>
<tr>
<th>AT&amp;T SIM</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
</tbody>
</table>

## H. Total Materials and Supplies (Sum items in G)

$0.00 $0.00 $0.00 $0.00

## I. Total Salaries; Equipment; Materials and Supplies (Sum: Line D + Line F + Line H)

$8,883.00 $8,883.00 $0.00

## J. Total Technology Fee Request

$8,883.00 $8,883.00 $0.00 $0.00

## K. Match (N.A.)

## L. Total Project Expenditure (Sum: Line J + Line K)

$8,883.00 $8,883.00 $0.00 $0.00

**Name (Type or Print)**

Project Director: Anne Denton

Unit Head: Brian Slator

**Signature**

Anne Denton

Brian Slator

**Date**

9/30/13

**Received**

SEP 30 2013

Office of the Vice President for Information Technology
# Technology Fee Award Budget Report

## Part 2 of 2: Specific Details

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Expected outcome</th>
<th>Actual Outcome</th>
<th>Means of assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setup of new server</td>
<td>Project hosted at NDSU</td>
<td>Project is hosted at NDSU</td>
<td>Web site available</td>
</tr>
<tr>
<td>Mobile upload implemented</td>
<td>Photos can be uploaded based on cell phone GPS</td>
<td>Accomplished for iPhone</td>
<td>Upload can be performed and contributes to the site</td>
</tr>
<tr>
<td>Site ready for possible flooding</td>
<td>Proposed year was 2012 but there was no flood that year</td>
<td>Was accomplished for flood of 2013</td>
<td>Tests involving students in CS program</td>
</tr>
<tr>
<td>Code base and database redesigned</td>
<td>The site serves to improve NDSU’s image in the community and can be quickly repurposed as needed in later emergencies</td>
<td>Accomplished</td>
<td>All design goals were met and the site functioned flawlessly during the flood of 2013</td>
</tr>
</tbody>
</table>

## Equipment

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Quantity</th>
<th>Cost/Item</th>
<th>Total Cost</th>
</tr>
</thead>
</table>

## Materials & Supplies

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Cost/Item</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dell, PowerEdge Rack Server</td>
<td>1</td>
<td>$2,671.00</td>
<td></td>
</tr>
<tr>
<td>Galaxy Nexus</td>
<td>1</td>
<td>$434.07</td>
<td></td>
</tr>
<tr>
<td>Samsung Galaxy</td>
<td>1</td>
<td>$438.77</td>
<td></td>
</tr>
<tr>
<td>iPad2 w/3G</td>
<td>1</td>
<td>$479.00</td>
<td></td>
</tr>
<tr>
<td>iPhone</td>
<td>1</td>
<td>$698.00</td>
<td></td>
</tr>
</tbody>
</table>

## Project Overview/Budget Summary

...
Project Title: Flood Monitor
Date: 7/12/13
Project Leader: Anne Denton
Report Period: Final

Project Description:

Floods have been a pervasive experience in the Red River Valley in recent years, and this Spring we were able to present the NDSU community with a completely revised version of the Flood Monitor, as proposed to TFAC in 2011. The web interface is available at http://flood.cs.ndsu.nodak.edu/

As proposed, the Flood Monitor now has both support through an Android and an iPhone app. Cesar Ramirez did an outstanding job developing the Android App and published it well in time for the 2013 flood. Since the development of the apps turned out to be substantially more time intensive than estimated, we were fortunate that Saumya Singh was willing to develop the iPhone App as a Master of Science Paper project, without expending Technology Fee resources.

The web side of the application was completely redone by Justin Anderson, to allow for the xml communication with mobile device, and to make the application more modular so that it can be extended to other applications. Developing the web application was also substantially more cost-intensive, and $1,500 were used from Anne Denton’s James A. Maier Junior Award to complete the project.

Since the spring of 2012 was exceptionally dry we decided on a longer time frame than originally planned to be able to do a more thorough job. We believe that this approach paid off through the quality of the result. In 2013 the site saw some use, however since the 2013 flood was not record breaking the public interest in flood-related information of any nature was lower than in some previous years.

Progress toward Milestones:

- 06/30/2013  New server set up, and the project is now hosted at NDSU
- 03/15/2013  Preliminary version of the Android app extensively tested by the NDSU Computer Science student community
- 04/15/2013  New web application ready for use and Android app published. (The iPhone app, which was not funded through the project, was fully developed at this point but required more administrative approval steps.)
- 05/01/2013  An e-mail was sent to the campus community to inform of the project and encourage contributing information.

Funding Summary: