BRADLEY University

Meeting Minutes

BEMOSS and Its Enhanced Applications

Brian Lauer

blauer@mail.bradley.edu

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Friday, March 13, 2018

1 Notation

Throughout this document, the vectors (matrices) will be denoted by lowercase (uppercase) bold letters while the lowercase non-bold letters will denote scalar quantities. Sets will be denoted by calligraphic letters. For positive integers $m, n > 0$, $\mathbb{R}^n (\mathbb{R}^{m \times n})$ denotes n–dimensional column vector ($m \times n$–dimensional matrix) with entries taken from a set of real numbers $\mathbb{R}$. $(\cdot)^T$ denotes the transposition of quantity $(\cdot)$. The standard Euclidean norm of the vector $\mathbf{x} \in \mathbb{R}^n$ and the matrix $\mathbf{A}$ are given by $\|x\| = \left(\sum_{i=1}^n |x_i|^2 \right)^{1/2}$ and $\|\mathbf{A}\| = \left(\sum_{i=1}^m \sum_{j=1}^n |a_{ij}|^2 \right)^{1/2}$ with x_i, a_{ij} being the entries of $\mathbf{x}$ and $\mathbf{A}$, respectively. The scalar products of quantities $\mathbf{x}, \mathbf{y} \in \mathbb{R}^n$ and $\mathbf{A}, \mathbf{B} \in \mathbb{R}^{m \times n}$, are given by

$$\mathbf{x}^T \mathbf{y} = \sum_{i=1}^n x_i y_i \ \text{ and } \ \mathbf{A} \cdot \mathbf{B} = \text{Tr}\left(\mathbf{A}^T \mathbf{B} \right) = \text{Tr}\left(\mathbf{A} \mathbf{B}^T \right),$$

respectively, where $\text{Tr}(\cdot)$ is the trace of matrix $(\cdot)$. Clearly, $\text{Tr}(\mathbf{A}^T \mathbf{A}) = \|\mathbf{A}\|^2$.
Example of citing a paper. "Authors in [1] ..."

Friday, April 26, 2019

Dr. Miah will write a research grant proposal under BEMOSS and is due May 3.

All documentation will be maintained in a github repository for this project. I need to create a Github account and send my username to Dr. Miah. A Google Drive with the same name as the Github repository will be created name DocsBEMOSS.

I need to talk to Mr. Mattus about getting a laptop for research. It must be installed with Ubuntu administrative privileges.

Send him an email:

Hello Mr. Mattus, I will be working on a project with Dr. Miah. For that we would like to request a laptop available in the department if possible so that we can install Ubuntu operating system.

Try to go see him in the afternoon.

I need to learn the following Github Bash terminal commands:

```
Git add
Git commit -m adding files
Git remote add origin 'url'
```

To get a better undestanding of what is going on I need to go through Github tutorials.

Bibliography

[1] F. Martinelli. A robot localization system combining rssi and phase shift in uhf-rfid signals. *IEEE Transactions on Control Systems Technology*, 23(5):1782–1796, Sept 2015. 5