

IEEE Signal Processing Society Synthetic Aperture Standards Committee (SASC)  
P3382 Working Group on Performance Metrics for MRI Image Reconstruction  
Meeting Minutes (draft) for Thursday, February 22,  
10:00a – 11:00a ET (UTC-5) via teleconference  
<https://ieeesa.webex.com/ieeesa/j.php?MTID=m046015e09da0e9a3c77e70625110ae24>

1. Call to Order – *meeting called to order at 10:05 am ET. Minutes recorded by P. Vouras*
2. Introduction and Affiliation Declarations – *all attendees introduced themselves and stated their affiliation*
  - a. Please provide name, email, affiliation
  - b. Please attest to having read the [IEEE policies](#) on copyrights, behavior, and patents
  - c. Establish Quorum – *quorum was established*
3. Approval of Agenda – *agenda was unanimously approved*
  - *Mover: Michael Steckner*
  - *Seconder: Venkata Chebrolu*
4. Approval of Previous Meeting Minutes – *previous minutes were unanimously approved*
  - *Mover: Venkata Chebrolu*
  - *Seconder: Boon Chong Ang*
5. IEEE Patent, Behavior, and Copyright Policies – *IEEE policies were reviewed*
  - a. Review if necessary -- [IEEE policies](#)
  - b. Call for patents – *a call for patents was made*
6. Discussion Topics:
  - a. Our working group received approval to use images from the Alzheimer’s Disease Neuroimaging Initiative (ADNI) -- <https://ida.loni.usc.edu/login.jsp?project=ADNI>
    - *The group discussed brain images and metadata available from the ADNI database*
  - b. We will discuss the images available in the database
  - c. We will discuss whether we can use TensorFlow to create a deep learning application that determines the quality of the images
    - *P. Vouras gave an introductory presentation on deep learning*
    - *A question for the group is to consider how image quality affects image processing tasks such as segmentation or classification*
    - *An advantage of the ADNI images is that other modalities, such as CT scans, can serve as a standard to compare against the output of a machine learning algorithm. This supports the explainability of machine learning outputs*
    - *The brain is advantageous to consider first because it is a small organ and lacks fat. Cardiac images may be corrupted by motion. Images of large organs, such as the abdomen or liver, have their own complications.*
  - d. *The group voted unanimously to approve a motion to consider brain images first*
    - *Mover: Luis Tavora*
    - *Seconder: Venkata Chebrolu*

7. New Business – *for next meeting's agenda, the group would like to discuss possible platforms for implementing a machine learning algorithm, e.g. TensorFlow, Matlab, Python, local code on individual machines versus shared software on GitHub*

8. Future Meetings – *next meeting is in 4 weeks on March 21 at 10 am ET*

9. Adjourn – *meeting adjourned at 11:01 am ET*