



UNIVERSITY
OF MANITOBA

Graduate Program in Biomedical Engineering

E2-390 Eng. Bldg.
University of Manitoba
Winnipeg, Manitoba
Canada, R3T 5V6
Telephone (204) 474-9755
biomedic@umanitoba.ca

Data Sharing Agreement

The data provided through this agreement are tracheal breathing sounds data recorded at Misericordia Hospital from patients a few hours (around 8-9 PM) prior to proceeding to the full PSG overnight sleep study. The data recording procedure and equipment as well as the methodology for analyzing the breathing sounds to predict obstructive sleep apnea during wakefulness are fully explained in the reference below.

By signing this consent, if eligible, you will have access to three files: the raw data in MAT format (for MATLAB), an excel file containing anonymized anthropometric information of the subjects in MAT file and a README file that describes what each row and columns of data are plus an example to read the data correctly. There are other papers of our team on this topic as well that you can see their list on the next page of this document.

If interested to receive the data, please provide the following information:

First name, Last name:

Position:

University/Research Institution:

Department:

Purpose of using this data:

Statement of Consent

By signing this consent form, on behalf of my team I declare all the provided information above is true, I will use this data only for research purpose, will not share the data with another research group, and also acknowledge the source of data by referring to the following publications in any of our future publications.

Reference

Elwali A. and Moussavi Z., "A novel diagnostic decision-making procedure for screening obstructive sleep apnea using anthropometric information and tracheal breathing sounds during wakefulness," *Scientific Reports*, 9: 11467 (2019) Aug. 2019. <https://doi.org/10.1038/s41598-019-47998-5>

Name:

Signature:

Date:

In case the applicant is a student:

Supervisor's name:

Supervisor's Signature:

Date:

Please save the signed copy of this page and send it to Dr. Zahra.Moussavi@Umanitoba.ca for consideration.

List of relevant papers on this topic

1. Hajipour F, Giannouli E. and Moussavi Z., "Acoustic characterization of upper airway variation from wakefulness to sleep with respect to obstructive sleep apnea," *J Medical & Biological Engineering & Computing*, 58:2375-2385, July 2020. DOI: <https://doi.org/10.1007/s11517-020-02234-5>
2. Hajipour F, Jafari-Jozani M. and Moussavi Z., "A comparison of regularized logistic regression and random forest machine learning models for daytime diagnosis of obstructive sleep apnea," *J Medical & Biological Engineering & Computing*, 58: 2517:2529; Aug. 2020. DOI: <https://doi.org/10.1007/s11517-020-02206-9>
3. Hajipour F, Elwali A., Jafari-Jozani M. and Moussavi Z., "Regularized Logistic Regression for Obstructive Sleep Apnea Screening during Wakefulness Using Daytime Tracheal Breathing Sounds and Anthropometric Information," *J Medical & Biological Engineering & Computing*, 57(12):2641-2655, 2019. DOI: 1007/s11517-019-02052-4
4. Elwali A. and Moussavi Z., "A novel diagnostic decision making procedure for screening obstructive sleep apnea using anthropometric information and tracheal breathing sounds during wakefulness," *Scientific Reports*, 9: 11467 (2019) Aug. 2019. <https://doi.org/10.1038/s41598-019-47998-5>
5. Hajipour F. and Moussavi Z., "Spectral and Phasic Characteristics of Expiratory Tracheal Breathing Sounds during Wakefulness and Sleep in People with Different Levels of Obstructive Sleep Apnea," *J Medicine and Biological Engineering (JMBE)*, 39(2):244-250, March 2019. <https://doi.org/10.1007/s40846-018-0409-7>
6. Elwali A. and Moussavi Z., "The effects of anthropometric parameters on the breathing sound features while screening obstructive sleep apnea during wakefulness," *J Medicine and Biological Engineering (JMBE)*, 39(2):230-237, March 2019. <https://doi.org/10.1007/s40846-018-0410-1>
7. Elwali A. and Moussavi Z., "Obstructive Sleep Apnea Screening and Airway Structure Characterization during Wakefulness Using Tracheal Breathing Sounds," *Annals in Biomedical Eng*, 45(3):851-858, 2017, DOI: 10.1007/s10439-016-1770-8.