MATLAB Theory to Practice: Application in Hearing, Speech and Language Sciences
A National workshop
Organized by Pune Institute of Computer Technology
&
Bharati Vidyapeeth (Deemed to be University)
School of Audiology and Speech Language Pathology
Date: 8th to 12th April, 2019 **Venue: PICT, Pune**

BASIC LEVEL - Module 1 (8th and 9th April 2019)

Time	Topic	Venue	Speakers
	Module 1-Day 1		
9.00-9.30	***Registration E&TC Seminar Hall***		
9:30-9:45	Welcome & Overview of the workshop	***E&TC Seminar Hall***	
9:45 - 11:15	Application of MATLAB in Hearing, Speech and Language sciences	***E&TC Seminar Hall***	
9:45-10:15	(a) Diagnosis of Auditory disorders		Dr. C. S. Vanaja
10:15-10:45	(b) Aural Rehabilitation		Dr. Sharda Sarda
10:45 - 11:15	(c) Assessment and management of speech and language disorders		Ms. Rohini Chand
11:15 - 11:30	Tea Break		
11:30 - 1:00	Basics of signal processing related to Audiology and Speech, Language Pathology and sciences	***E&TC Seminar Hall***	Dr. A. Nambi
1:00 - 2:00	Lunch		
2:00 - 3:10	Introduction to Basic of MATLAB & Practice basics of MATLAB	***A1 105***	Ms. A. Kulkarni
3.10 – 3.20	Tea break		
3.20 - 5:00	Data plotting	***A1 105***	Mr. K. Sakhare

Module 1 - Day 2			
9:30 - 11:00	Applications of digital signal processing in psychoacoustics and hearing aid technology using MATLAB.	***E&TC Seminar Hall***	Dr. A. Nambi
11:00 –11:15	Tea Break		
11:15 – 1:00	Introduction to digital signal processing through MATLAB.	***A1 105***	Dr. S. Phatak
1:00 - 2:00	Lunch		
2:00 - 3:00	Practical sessions on creating and manipulating audiofile using MATLAB	***A1 105***	Ms. A. Kulkarni & Dr. S. Phatak
3.00 - 3.10	Tea Break		
3:10 - 4:30	Signal level analysis and temporal modification using MATLAB.	***A1 105***	Dr. S. Phatak
4:30-5:00	Wrap up of Module 1	***A1 105***	Dr. S. Phatak& Dr. A. Nambi

ADVANCED LEVEL - Module 2 (10th to 12th April 2019)

Time		Venue	Speakers
Module 2 - Day 3			
9.00-9.30	***Registration E&TC Seminar Hall***	***E&TC Seminar Hall***	
9:30 - 10:30	Recap of Module and Introduction to advances of MATLAB for diagnosis and management of communication disorders.	***E&TC Seminar Hall***	Dr. S. Phatak
10.30 – 10.45	Tea Break		
10:45- 1:00	Application of MALAB for spectral and spectrographic analysis of waveforms in speech and hearing disorders	***A1 105***	Mr. K. Sakhare & Dr. S. Phatak
1.00 – 2.00	Lunch		
2:00 – 3.10	Use of MATLAB for digital filtering and its implementation in speech and hearing sciences. Contd …	***A1 105***	Dr. S. Phatak
3.10 – 3.20	Tea Break		
3.20 - 4:30	Contd …. Use of MATLAB for digital filtering and its implementation in speech and hearing sciences.	***A1 105***	Dr. S. Phatak
Module 2 - Day 4			
9:30 -11:00	Extraction and encoding of temporal features in auditory signal and its implication in hearing devices	***A1 105***	Dr. S. Phatak
11.00 – 11.15	Tea Break		
11:15 – 1:00	Analyzing temporal characteristics of speech stimuli with its implication in communication disorders	***A1 105***	Dr. S. Phatak
1.00 – 2.00	Lunch		
2:00 – 3.10	GUI basics contd…..	***A1 105***	Dr. S. Phatak
3.10 – 3.20	Tea break		
3.20 - 4:30	contd…..GUI basics	***A1 105***	Dr. S. Phatak
Module 2 - Day 5			
9:30 - 10:00	Overview of a ‘Mini project (GUI-based)’	***A1 105***	Dr. S. Phatak
10.00 – 10.15	Tea Break		
10:00- 1.00	Miniproject contd…..	***A1 105***	Dr. S. Phatak
1.00 – 2.00	Lunch		

2:00- 3:30	contd….. Miniproject	***A1 105***	Dr. S. Phatak
3.30 – 3.45	Tea break		
3:45 - 4:10	Learning outcome from the workshop &take home message	***E&TC Seminar Hall***	Dr. C. S. Vanaja
4:1 0- 4:40	Valedictory (Evaluation & Certificates)	***E&TC Seminar Hall***	Dr. S. Phatak