**Track I: Speech**

**Modeling Aspect of Speech**:

Speech analysis and representation

Analysis of Speech and Audio Signals

Audio signal analysis and representation

Speech and audio segmentation

Speech and audio classification

Speech coding and transmission

Perceptual audio coding of speech signals

Noise reduction for speech signals

Speech enhancement: single-channel

Speech enhancement: multi-channel

Speech intelligibility

Speech enhancement in hearing aids

Echo cancelation for speech signals

Statistical parametric speech synthesis

Speech enhancement

Speech synthesis   
Speech translation systems   
Spoken dialogue systems   
Speech Acquisition

Speech acoustics

Models of speech production

Voice activity detection

Pitch and harmonic analysis

Speaker spatial localization

Phonation and voice quality

Far field and microphone array speech recognition

Language identification and verification

Dialect and accent recognition

Speech transcription

Pronunciation variants and modeling for speech recognition

Speech analysis in the presence of music

Singing analysis

Synthesis of singing voices

Voice modification, conversion and morphing

Concept-to-speech conversion

Tools and data for speech synthesis

Conversation, communication and interaction

Stochastic modeling for dialog

Question-answering from speech

Language modeling for conversational speech (dialog, interaction)

Evaluation and quality insurance of language resources

Evaluation of speech transmission, coding and enhancement

Evaluation of speaker and language identification systems

Evaluation of speech synthesis

Evaluation of speech and multimodal dialog systems

**Computation Aspect of Speech**:

Speaker recognition

Speech analytics and audio mining

Speech recognition and understanding

Voice assistants

Feature extraction

Audio-visual speech processing

Deep learning for speech processing

Human-machine interaction

Language identification

Multimodal analysis and synthesis

Analysis of speaker states

Analysis of speaker traits

Automatic analysis of speaker states

Automatic analysis of speaker traits

Features for speaker and language recognition

Speech Synthesis and Spoken Language Generation

Computational resource constrained speech recognition

Spoken machine translation

Speech-to-speech translation systems

Voice search

Spoken term detection

Metadata descriptions of speech, audio and text resources

Automatic segmentation and labeling of resources

**Cognitive Aspect of Speech**:

Speech perception

Models of speech perception

Speech and voice disorders

Neurophysiology of speech production and perception

 Interaction speech production-speech perception

Multimodal speech perception

Cognition and brain studies on speech

Code switching and multilingual studies

Combining speech and other biosignals

Hearing disorders  
Pathological speech and language

**Track II: Music**

**Signal Aspect of Music**

Music signal processing

Symbolic music processing

Sound source separation

Music transcription and annotation

Music summarization

Representations of music

Music synthesis and transformation   
Segmentation and form

Melody extraction

Timbre, instrumentation and voice

Rhythm, beat and tempo

Rhythm, Meter and Timing

Noise reduction from music

Music pattern matching and detection

Music Theory

Mathematical Analysis of Musical Instruments

Controllers and interfaces for musical expression   
Mathematical Models in Music   
Mathematical Models in Acoustics

Musical features and properties

**Computational Aspect of Music**

Computational music theory

Machine learning in music

Artificial Intelligence in Music   
Automatic classification   
Automatic Music Composition   
Computational Acoustics   
Computational music theory and musicology   
Computers in Music Composition

Digital libraries and archives   
E-Learning and Music

Evaluation Methodology for Music

Evaluation Metrics for Music

Indexing and querying of Music

Music metadata, tags, linked data, and semantic web

Music lyrics and other textual data

Digital Representations of music

Human-computer interaction

Music information retrieval

Music similarity Analysis

Automatic classification of Music

Music recommendation

Music informatics

Music recognition

Pattern Recognition in Music

Music fingerprinting;

Musical human-computer interaction

**Cognitive Aspect of Music**

Musical style and Genre

Musical affect, emotion and mood;

Expression and performative aspects of music

Philosophical and methodological foundations for Music

Motion, gesture and music

Aesthetic Perception and Response

Music training and education

Music Engineering

Musicology

Psychoacoustics

Audio-Visual Perception of music

Ethnomusicology

Cognitive Musicology

Music and Neuroscience

Memory and Music

Music Perception and Cognition

Music and Psychology

Music and Personality

Social Psychology of Music

**Track III: Application**

**Applications of Speech**

Forensic speech investigations

Virtual and augmented reality

Text processing for speech synthesis

Text mining and sentiment analysis

Speech driving systems in robotics

Speech-based applications

Social signal processing

Sentiment analysis and opinion mining

Speech science in end-user applications

Applications in education and learning

Applications in medical practice

Interactive systems for speech/language training, therapy, communication aids

Systems for spoken language understanding

Indexing, mining and retrieval of speech and audio documents

Spoken document summarization

Semantic analysis and classification

Entity extraction from speech

Topic spotting and classification

Relevance of language models for mental state detection

**Applications of Music**

Film and Music

Music for Robotics

Music Therapy

Music for mental health

Music as Medicine

Application of natural language processing in music

Mental health expression and experience in popular music   
Music for alienation, order and disorder   
Music for pain, loss and grief   
Music related to specific mental health conditions   
Solfeggio and other systems of tonal therapy   
Apps and business start-ups that facilitate use of music   
Music and mental health of animals   
Music and sports psychology   
Music and the spiritual mind   
Social media, networking and music    
Music to address mental health issues in vulnerable communities   
Music to improve mental health in schools, businesses and organizations

Music to reduce the social stigma around mental health issues

Online music retrieval systems

Music recommendation and playlist generation

Music for well-being and therapy

Music training and education

Music for gaming