TEAM 51:
Bhoomika Agarwal
Sreekumar T
Ramesh M
Sowmya R

GUIDE:
Ms. Saraswathi R. Punagin
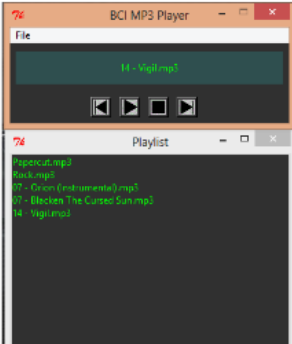
ACKNOWLEDGEMENT:
Dr. Snehanshu Saha

PES INSTITUTIONS

The Times of BCI

Vol XCIII, No. 311   Friday, May 6, 2016 $1.25

BCI-Operated Media Player

BCI MP3 Player
File
14 - Vigil.mp3

Playlist
Papercut.mp3
Rock.mp3
07 - Orion (instrumental).mp3
07 - Blacken The Cursed Sun.mp3
14 - Vigil.mp3

Problem Statement

- Design a system that allows people with severe motor disability to communicate with computers in real time.

- This system should be able to scale up to multiple dimensions effectively.

- The developed system must be cost effective and easy to use

> I think therefore I am.

Our Approach
Data flow

What's different?

ADVANTAGES
- Easily scalable
- High performance and reliability
- Simplified hardware and software
- Efficient means of communication with the computer system
- Does not require much training of the user before usage

APPLICATIONS
- Can be used as a proof of concept for software applications with multiple dimensions and functions.
- Provides a tool for users to control a media player through their brain signals

Results Achieved

- Processing accuracy of 74% was achieved
- Created a media player that can be operated using inputs from BCI using offline data sets and string inputs
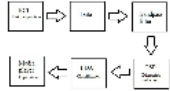- Designed a regular expression to validate all string inputs

Future Scope

- Increase accuracy of processing
- Scale to more functions for the media player
- Extend the same paradigm to other software

> Thank You!

Prezi

TEAM 51:
Bhoomika Agarwal
Sreekumar T
Ramesh M
Sowmya R

GUIDE:
Ms. Saraswathi R. Punagin

The Times of BCI

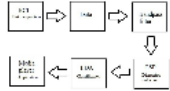**PES INSTITUTIONS**

BCI-Operated Media Player

Problem Statement

- Design a system that allows people with severe motor disability to communicate with computers in real time.

- This system should be able to scale up to multiple dimensions effectively.

- The developed system must be cost effective and easy to use

> I think therefore I am.

Our Approach
Data flow

What's different?

ADVANTAGES
- Easily scalable
- High performance and reliability
- Simplified hardware and software
- Efficient means of communication with the computer system
- Does not require much training of the user before usage

APPLICATIONS
- Can be used as a proof of concept for software applications with multiple dimensions and functions.
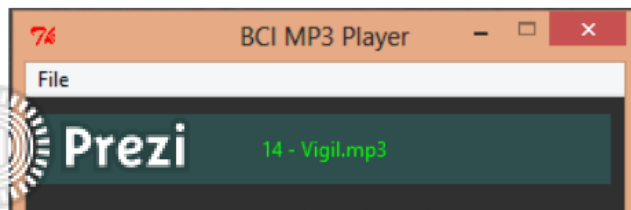- Provides a tool for users to control a media player through their brain signals

Results Achieved

- Processing accuracy of 74% was achieved

- Created a media player that can be operated using inputs from BCI using offline data sets and string inputs

- Designed a regular expression to validate all string inputs

Future Scope

- Increase accuracy of processing

- Scale to more functions for the media player

- Extend the same paradigm to other software

> Thank You!

Prezi

BCI-Operated Media Player

> I think therefore I am.

BCI MP3 Player

File

Prezi   14 - Vigil.mp3

Problem Statement

- Design a system that allows people with severe motor

Our Approach
Data flow

BCI Data acquisition → Data → Bandpass filter

BCI-Operated Media Player

BCI MP3 Player

File

14 - Vigil.mp3

Playlist

Papercut.mp3
Rock.mp3
07 - Orion (Instrumental).mp3
07 - Blacken The Cursed Sun.mp3
14 - Vigil.mp3

Problem Statement

- Design a system that allows people with severe motor disability to communicate with computers in real time.

- This system should be able to scale up to multiple dimensions effectively.

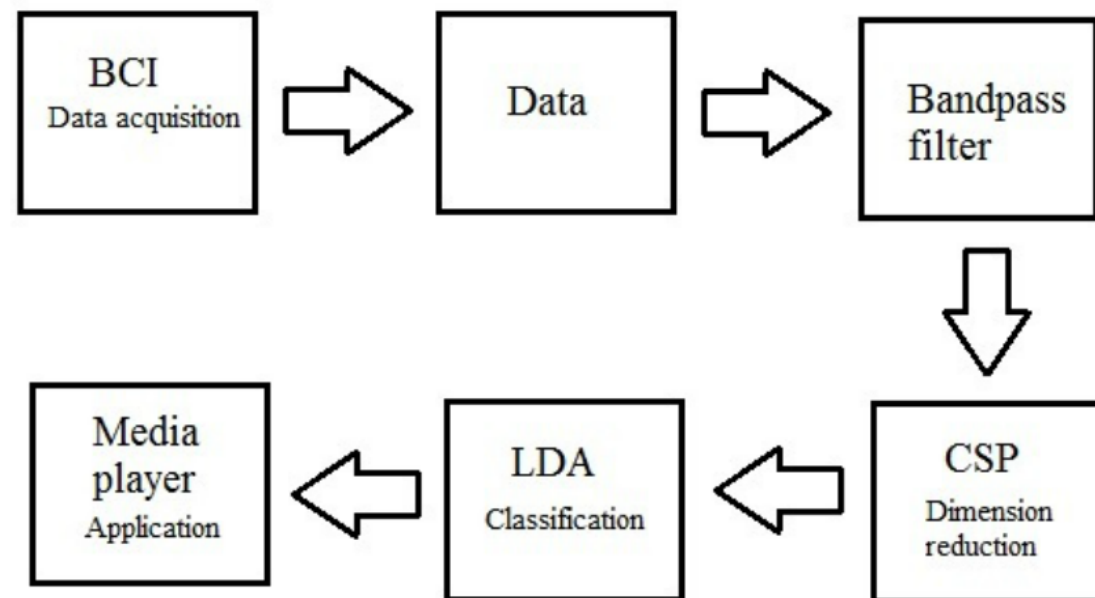- The developed system must be cost effective and easy to use

$1.25

> " I think therefore I am. "

Our Approach
Data flow

Our Approach
Data flow

What's different?

ADVANTAGES
- Easily scalable
- High performance and reliability
- Simplified hardware and software
- Efficient means of communication with the computer system
- Does not require much training of the user before usage

APPLICATIONS

• Can be used as a proof of concept for software applications with multiple dimensions and functions

• Provides a tool for users to control a media player through their brain signals

Results Achieved

- Processing accuracy of 74% was achieved

- Created a media player that can be operated using inputs from BCI using offline data sets and string inputs

- Designed a regular expression to validate all string inputs

Future Scope

- Increase accuracy of processing

- Scale to more functions for the media player

- Extend the same paradigm to other software

Thank You!

TEAM 51:
Bhoomika Agarwal
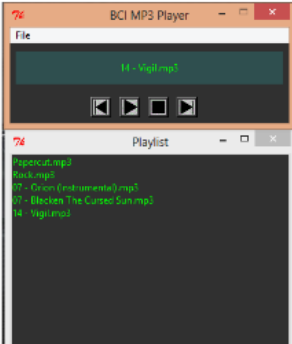Sreekumar T
Ramesh M
Sowmya R

GUIDE:
Ms. Saraswathi R. Punagin
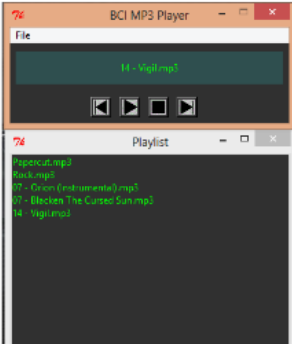
ACKNOWLEDGEMENT:
Dr. Snehanshu Saha

The Times of BCI

PES INSTITUTIONS

Vol XCIII, No. 311   Friday, May 6, 2016 $1.25

BCI-Operated Media Player

Problem Statement

- Design a system that allows people with severe motor disability to communicate with computers in real time.

- This system should be able to scale up to multiple dimensions effectively.

- The developed system must be cost effective and easy to use

> I think therefore I am.

Our Approach
Data flow

What's different?

ADVANTAGES
- Easily scalable
- High performance and reliability
- Simplified hardware and software
- Efficient means of communication with the computer system
- Does not require much training of the user before usage

APPLICATIONS
- Can be used as a proof of concept for software applications with multiple dimensions and functions.
- Provides a tool for users to control a media player through their brain signals

Results Achieved

- Processing accuracy of 74% was achieved
- Created a media player that can be operated using inputs from BCI using offline data sets and string inputs
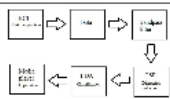- Designed a regular expression to validate all string inputs

Future Scope

- Increase accuracy of processing
- Scale to more functions for the media player
- Extend the same paradigm to other software

> Thank You!

Prezi