

Brain Glass Technology

Samruddhi Heramb Kanade,Rajasi S.Salunkhe

Abstract:

The aim of this analysis was to explore the attainable integration of Google Glass with Brain Mapping technology towards the event of increased version of Google Glass that may directly mapping the brain impulses and execute commands of users which was found to be achievable.

I Introduction:

Google glass is formed up from technologies like Brain Mapping, EEG, brain's optical system, tissue system.

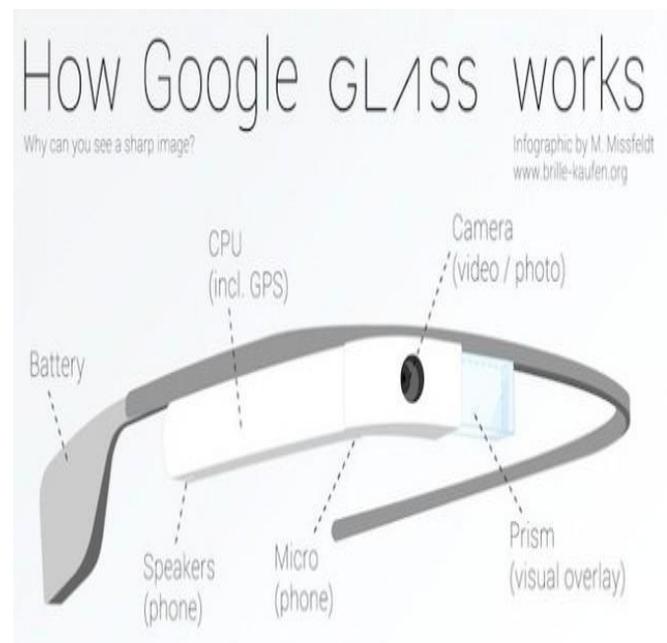
Brain glass animation overlays electroencephalography (EEG) info collected in real time atop a resonance imaging (MRI) scans, illustrating but completely totally different brain areas communicate with each other. Special algorithms coded into package digitally reconstruct this activity among the brain. the result is a tour of the brain that captures every the temporal property and placement of brain signals. Further advancement of the tactic permits in accessing the laptop system, sharing of images, reading of mind (thoughts). Currently the analysis square measure being conducted at intervals the life science field with of us of special

abilities, autism therefore on provide a plenty of upper understanding of their brain's operational.

Keywords:

Google glass, Brain mapping, EEG, brain's optical system, cortical system, MRI.

II Google Glass structure



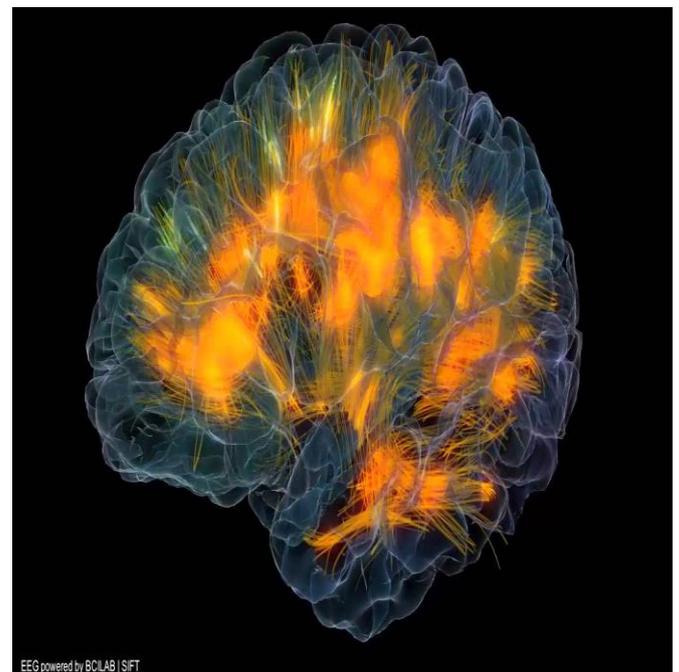
III Brain Glass components:

Brain-computer interfaces (BCIs) convert brain signals into outputs that communicate a user's intent. As a result of this new communicating doesn't rely upon peripheral nerves and muscles, it may be utilized by folks with severe motor disabilities. BCIs will enable patients World Health Organization are wholly unfit (or 'locked in') by amyotrophic lateral indurations (ALS), brain-stem stroke or different contractile organ diseases to precise their desires to the surface world. However, sensible applications of BCI technology to the requirements the wants of all folks obstructed by the constraints and requirements of current BCI methodologies.

BCIs will use non-invasive or invasive ways. Non invasive BCIs use medical instrument activity (EEG) recorded from the scalp. They're convenient and safe however they need comparatively low spacial resolution, are at risk of artefacts like electromyographic (EMG) signals, and infrequently need intensive user coaching.

Invasive BCIs use single-neuron activity recorded among the brain. Where as they have higher spatial resolution and should offer management signals with many

degrees of freedom, BCIs that depend on electrodes among cortex face substantial problems in achieving and maintaining stable long recordings. The Brain glass system was developed by procedure neuroscientists Tim Mullen and Christian Kothe of the University of CA, San Diego, together with the science laboratory of Adam Gazzaley, a neurobiologist at the University of CA, San Francisco, employing a video game telephone receiver created by the diversion company sense organ Rift.



The brain within the demo truly belonged to Rosedale's woman Yvette, World Health Organization was carrying a cap adorned with EEG (EEG) electrodes that live

variations in potential difference so as to record brain activity. Gazzaley's team had antecedently scanned Yvette's brain victimization resonance imaging (MRI) to reveal its underlying structure and tangle of neural fibers. This is Associate in Nursing anatomically-realistic 3D brain visualization portraying period source-localized activity (power and "effective" connectivity) from graphical record (electroencephalographic) signals. every color represents supply power and property in an exceedingly totally different band (theta, alpha, beta, gamma) and also the golden lines area unit nervous tissue anatomical fiber tracts. Calculable info

Transfer between brain regions is envisioned as pulses of sunshine flowing on the fiber tracts connecting the regions. The brain within the demo truly belonged to Rosedale's woman Yvette, World Health Organization was carrying a cap adorned with EEG (EEG) electrodes that live variations in potential difference so as to record brain activity. Gazzaley's team had antecedently scanned Yvette's brain victimization resonance imaging (MRI) to reveal its underlying structure and tangle of neural fibers. This is Associate in Nursing anatomically-realistic 3D brain visualisation portraying period source-localized activity (power and "effective" connectivity) from graphical record (electroencephalographic) signals. every color represents supply power

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IV Current usage of Google Glass and Brain Glass

Google glass from its inhibition stage has been a talk of town and inspiration to form plenty of advance technology which can out par its current state.

The North yank nation government's defense technology agency is acting on a tool that will be able to transmit photos directly into a user's brain.

The new systems area unit the size of 2 little or no coins and should be able to send footage directly into human brain.

Google glass apps incorporating the brain glass technology area unit being created to help the specially abled of us to have increased communication with of us. Victimization the glass, they will act with their family, of us around judgment the emotions being delineate through the glass.

Research being conducted to help amputees with their new body parts, dominant them with the help of EEG-based BMI management. It uses non-invasive brain observance, capturing brain activity to figure out what parts of the brain unit of

measurement involved in grasping Associate in nursing object. There with data, BMI controlled the subject's intentions and allowed him to successfully grasp objects or management the motion of that body.

V Health Concerns

Google Glass has the potential to form plenty of within targeted and fewer susceptible to participate in real-life conversations. That alienation might need an impact on our physical health. The nerves vagus — that connects the middle and conjointly the brain — was negatively laid low with a deficiency of face-to-face communication that happens once you're constantly hooked on the device.

Peripheral field of vision could also be a main component of vision and essential for daily activities like driving, pedestrian safety and sports. Carrying Google Glass may part impede modality, inflicting blind spots that may interfere with daily tasks like driving.

The 3D happening is improbably foreign to our eye and it's forced with apparatuses and devices like glasses, to envision a picture three dimensional although the brain itself options a really similar plan. But the brain keeps a pair of slightly whole totally different angles and is not forced by glasses to undertake and do so. the larger mental effort

interprets into headaches and nausea.

VI Conclusion

The main aim of this research paper is to study the integration of Google glass with the brain glass technology. Brain glass is an emerging technology which is finding its uses in various fields. Google glass with its various uses can be integrated with brain glass as one complex and yet highly effective device which can explore various avenues of neural science which are yet to be explored. Combination of the best features of both the technologies will help in accessing the area of human life that were untouched due to its complications

ACKNOWLEDGEMENT

This analysis consumed immense quantity of labor and dedication. We wish to sincerely convey our academics. We specify our feeling toward our family and friends for their kind co-operation and encouragement that helped us during this analysis.

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AUTHORS:

First Author-Samruddhi Heramb Kanade, ASM's IMCOST College, Thane (west), Mumbai-400604.

Second Author- Rajasi S. Salunkhe. ASM's IMCOST College, Thane (west), Mumbai-400604.