

MedAssure

PATIENT SAFETY AND MEDICAL ERROR REDUCTION

TEAM MEMBERS

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PROBLEM STATEMENT

Amidst increasing demands, how can we precisely gauge a person's efficiency and ensure patient safety and reduced medical errors?

DOCTOR FATIGUE CAN CAUSE MEDICAL ERRORS



National Survey Shows Healthcare Worker Burnout Can Lead to Medical



Overtired GPs openly making mistakes as new research reveals doctors see more patients than is safe

Survey finds GPs working 11-hour shifts and seeing 41 patients a day, on average

Adam Forrest • Wednesday 08 May 2019 00:11 BST • Comments



Dr. MH @drMH10x · 5s
Psychomotor function of a Doctor on his 24 th hr of Duty is equivalent to that of an alcoholic with (BAC)-Blood alcohol concentration = 0.1

Which is above the legal limit to Drive a vehicle on the road but we are expected to save patients without errors

#sleepdebtkills #NMC

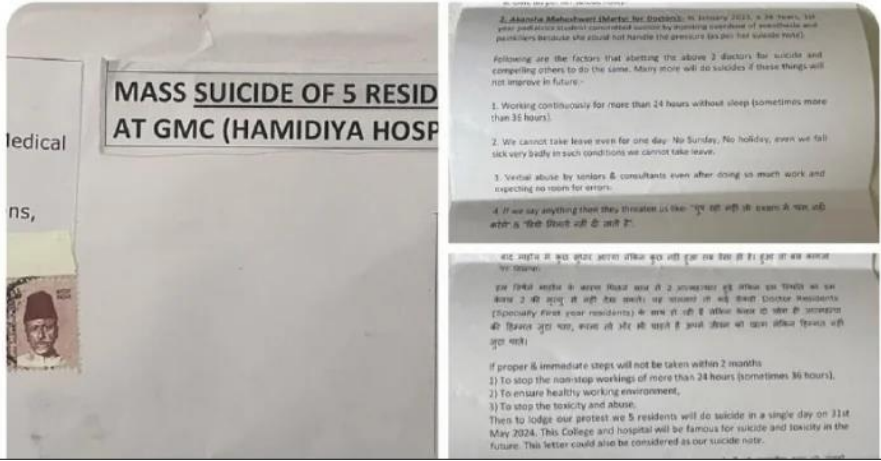


Dr.Dhruv Chauhan @DrDhruvchauhan

Resident doctors MASS SUICIDE letter from Gandhi medical college ,Bhopal should shake the soul of every single citizen of this Nation.

The residents have given ultimatum of mass suicide on 31st may if the toxic culture is not removed completely

It has never happened in the history that harassed doctors are ready to take their own lives due to torture by their medical college . Just to remind GMC Bhopal is the same place where multiple residents (including a pregnant doctor died due to toxicity)



NOVELTY OF THE PRODUCT

Introducing a cutting-edge technology- **“CIRCADIAN SYNC”**

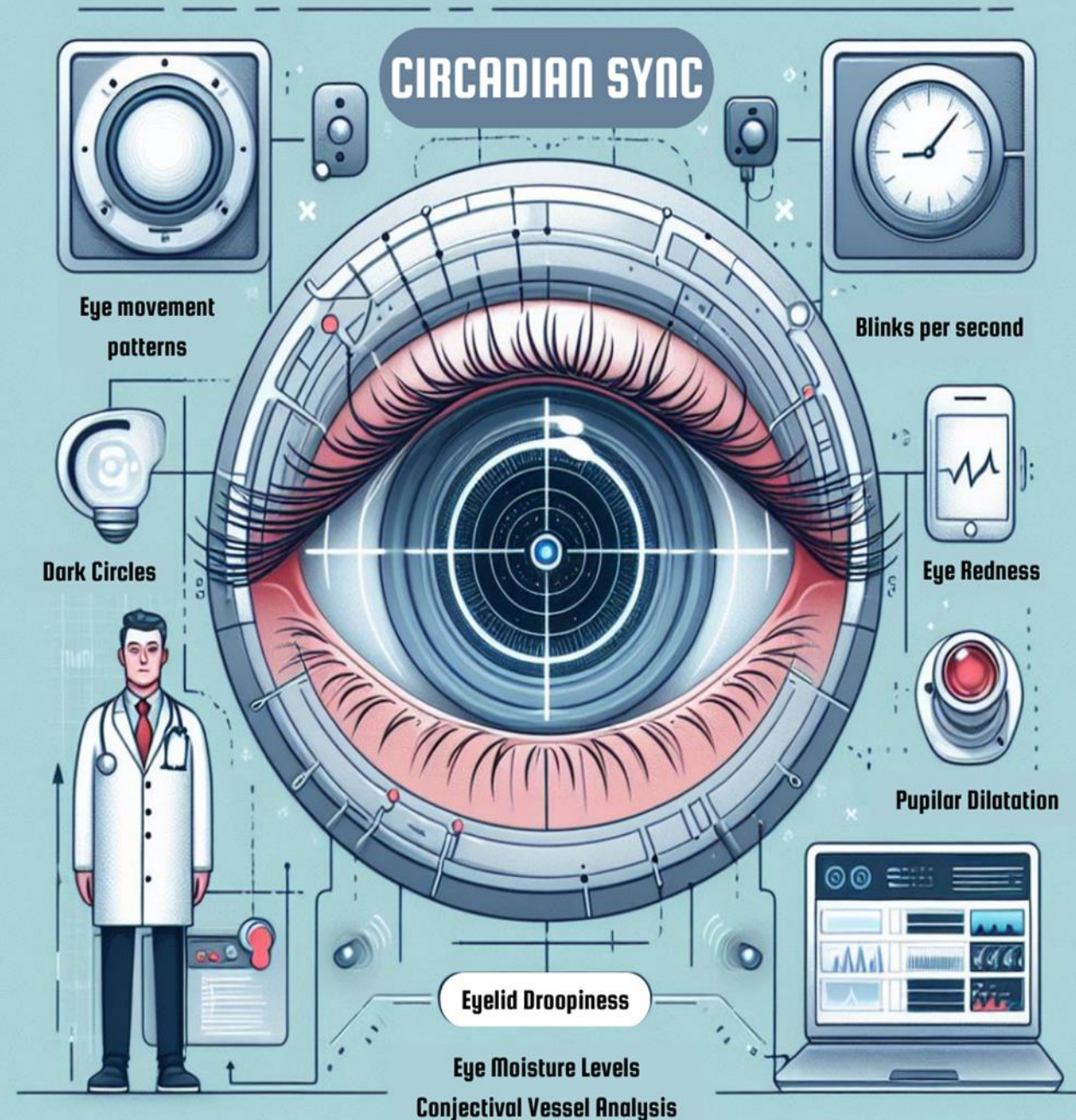
The device utilises advanced algorithms and machine learning to analyse a comprehensive set of parameters to gauge the efficiency and fatigue levels during long shifts.

We can determine the fatigue levels by checking the vitals and analysing 8 significant eye parameters which gauge the fatigue levels with upto 96% efficiency.

Undertaking must be taken to ensure none of the ulterior agents affect results.

PARAMETERS ASSESSED

1. Dark circles
2. Number of blinks/minute
3. Pupil Dilatation
4. Eyelid droopiness
5. Eye moisture
6. Eye movement patterns
7. Eye redness
8. Conjunctival vessel analysis



PRODUCT DESIGN OR WORK FLOW

- Step 1: Person walks up to the device
- Step 2: Person positions themselves in front of the scanner and focuses their eyes on the designated area.
- Step 3: The scanner captures high-resolution images of the person's eyes, including key parameters such as pupil dilation, blink frequency, and ocular movement patterns.
- Step 4: Advanced biometric algorithms analyze the eye images in real-time, extracting relevant features associated with fatigue levels and cognitive efficiency.
- Step 5: Based on the analysis, the scanner generates a comprehensive report indicating the person's fatigue level and cognitive efficiency, displayed on the device's interface.
- Step 6: The person receives the fatigue assessment report, providing insights into their current fatigue status and potential productivity risks.

POTENTIAL COMPETITORS

CRITERIAS	CIRCADIAN SYNC	FMS	EYE TRACKING DEVICES	TRADITIONAL TOOLS
Technology	Biometric tech	Wearable sensors	Eye-tracking	Biometric wearables
Accuracy	Direct analysis	Varied	Indirect	Indirect
Convenience	Non-invasive	Wearable	Specialized	Convenient
Market Focus	Safety-critical	General health	Research	Fitness/wellness
Cost	High initial	Varied	Equipment costs	Cost-effective
Competitive Adv.	Non-invasive,	Comprehensive	Real-time,	Convenience
	real-time	insights	cognitive	
	assessment		engagement	

SCALABILITY

FINANCIAL

1. Initial investment- High
2. Revenue streams – B2B model
3. Pricing strategy- based on sales and acceptance of the product
4. ROI- based on global market

TECHNOLOGICAL

1. R&D- significant
2. Hardware and software integration- crucial
3. Reliability and accuracy

RISKS WITH PRODUCT AND INVESTING

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Strengths



1. Novel product in the market
2. Improves doctor efficiency and reduces medical errors
3. Enhances patient safety
4. Accesses 8 eye parameters for detailed analysis

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Weaknesses



1. Initial high cost of implementation
2. Requires training for doctors to use effectively
3. Limited market awareness

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Opportunities



1. Potential to expand product to other industries beyond healthcare
2. Collaboration opportunities with hospitals and medical institutions
3. Opportunity for research and development to improve eye scanning technology

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Threats



1. Competition from existing traditional methods
2. Regulatory challenges in healthcare industry
3. Technological advancements making current product obsolete

PLANS FOR WHAT WILL BE DONE WITH INVESTMENT

