

Optometry DisList

Instance 2015: 18
Tuesday, 17 November 2015

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- Patient Gets Vision Restored After Receiving Two Retinal Implants
- Job opening at LVPEI, Hyderabad (Job)

Date: Friday, 30 October 2015
From: Apporva Chauhan (apoorva.chauhan@indiavisioninstitute.org)
Subject: **Tech boost for colour blind TV watchers**

A new technology could improve the television viewing experience for people who are colour blind, following the positive results of a recent trial.

The Eyeteq video enhancement technology from University of East Anglia spin out company [Spectral Edge](#) works by enhancing the contrast of colours on screen.

The technology moves away from traditional 'daltonization' of images, where hard to distinguish colours are substituted for others which a colour blind person can see more clearly. Instead, it remaps colours to maximise definition, minimising the strength of the effect for non-colour blind people.

Spectral Edge reports that in a trial of 90 people, 60 of whom had some form of colour blindness (including 40 deuteranopes), 93% of participants found watching processed videos "perfectly acceptable," enabling colour blind and non-colour blind viewers to watch content together on the same screen.

Spectral Edge has successfully integrated the technology into a chip for a set top box which is available for license on a fixed fee, annual subscription basis. However, while the technology may improve the image quality, it will have no control over the quality of the programmes.

For full article, please visit: <https://www.aop.org.uk/ot/science-and-vision/technology/2015/10/16/tech-boost-for-colour-blind-tv-watchers>

For further information about the technology: <http://eyeteq.spectraledge.co.uk/home>

Date: Monday, 2 November 2015

From: Sony singh (sony.singh@indiavisioninstitute.org)

Subject: **Associations of high myopia in childhood**

High myopia can often occur as a precursor to, concurrent with, or subsequent to ocular disorders, systemic diseases and hereditary syndromes. The recognition of these cases is imperative as there is a risk of visual loss from sight-threatening complications. High myopia is associated with a high prevalence of ocular and systemic abnormalities in young children. Myopia may be the presenting feature, hence optometrists should be particularly aware of the potential differential diagnoses of high myopic error in childhood, know how to manage these patients and refer when appropriate.

Isolated High Myopia: Progressive myopia can occur in the absence of recognised predisposing ocular or systemic disease, often resulting in errors of 10.00–15.00D in early childhood. Such cases should be referred to an ophthalmologist and investigated for occult collagenopathy.

Deprivation Myopia: Studies of amblyopia in the 1970s discovered that inducing visual deprivation by suturing the eyelids of new-born animals induces axial myopia. Later experiments showed that exposure to anomalous patterned stimuli through corneal opacification and the use of pattern vision attenuating occluders, induced a myopic shift. These experiments established the important regulatory role of visual experience in eye growth in animals and humans.

Ocular Associations

Retinal dystrophies: Several retinal dystrophies can be associated with myopia. The retinal dystrophy can be stationary, as in congenital stationary night blindness, or progressive with conditions such as cone-rod dystrophy, retinitis pigmentosa, Bardet Biedl syndrome and other ciliopathies.

Keratoconus: Keratoconus is a progressive, non-inflammatory, bilateral, often asymmetric corneal disease, characterised by stromal weakening leading to corneal ectasia; this results in visual loss from progressive irregular astigmatism and myopia, and corneal scarring.

Childhood cataracts: Children undergoing cataract extraction with IOL implantation at a young age can develop significant and unpredictable myopic shift despite adjusting the IOL power for the anticipated growth of the infant eye.

Syndrome of unilateral high myopia with myelinated nerve fibres: The development of very high myopia and amblyopia is a common finding in eyes with peripapillary myelinated nerve fibres. Patients with this condition should receive corrective lenses for their myopia and astigmatism, and may benefit from occlusion therapy

For full Article, please visit: [file:///C:/Users/admin/Downloads/cet_1\(3\).pdf](file:///C:/Users/admin/Downloads/cet_1(3).pdf)

Date: Friday, 6 November 2015

From: Jissa James (jissa.james@indiavisioninstitute.org)

Subject: **Fraunhofer tech to allow less conspicuous smart glasses**

Smartglasses, or augmented reality glasses, may have found niches in [military](#) and [industrial](#) circles, but haven't really caught on with consumers for a number of reasons – a major one being that they're extremely conspicuous. To help rectify this, the Fraunhofer Institute for Applied Optics and Precision Engineering (IOF) in Jena, Germany, has developed technology that allows for a more unobtrusive design, while also providing improved functionality.

The new technology consists of an earpiece and an 8 x 15 mm display made in two parts – the image-generating micro-display and the projecting optics. While this makes the micro-display similar in size to conventional smart glass offerings, the optics in Fraunhofer's design are only 5 mm long, which the company says is only a fifth the size of those found in other displays.

The Fraunhofer design allows users to look straight ahead with the information displayed next to the object of interest. This is achieved by means of a nanoscale lattice structure on a glass plate that acts as a light guide, yet is invisible to the naked eye.

The Fraunhofer smart glasses are able to compensate for farsightedness at the display level. The user inputs the relevant prescription information into a smartphone app, which sends the data via Bluetooth to the glasses, which adjust automatically. The system can also partly compensate for other problems, such as astigmatism and shortsightedness.

For full article, please visit: http://www.gizmag.com/fraunhofer-inconspicuous-smartglasses/37817/?utm_content=buffer14ef0&utm_medium=social&utm_source=facebook.com&utm_campaign=buffer

Date: Saturday, 14 November 2015

From: Sandhya Shekar (sandhya.shekar@indiavisioninstitute.org)

Subject: **Patient Gets Vision Restored After Receiving Two Retinal Implants**

Terry Byland, a USC Eye Institute patient, just earned the distinction of being the first person to have received two retinal implants. The results from his surgery leave others suffering from the same condition optimistic about the device being used in future procedures.

Byland, who was diagnosed with Retinitis pigmentosa, experienced gradual loss of sight and eventually lost vision at the age of 45. He joined clinical trials for the first prosthesis, Argus 1, which led to his right eye getting a 16-electrode retinal prosthesis in 2004. By 2015, Byland's left eye was implanted with the 60-electrode Argus II.

The Argus II uses a small video camera attached to a pair of eyeglasses, where the images taken go through a video processing unit to become wirelessly transmitted electronic signals, which works with the artificial retina. The receiver then sends these signals to the retina that travels through the optic nerve to the brain, which can now be interpreted as a visual image.

This latest advancement helps patients restore some visual capabilities, including recognizing large letters and locating the position of objects. It also gives hope to around a hundred thousand people in America who suffer from the degenerative disease.

For full article, please visit: <http://futurism.com/links/usc-eye-institute-patient-restores-sight-successfully-receiving-two-retinal-implants/>

Date: Saturday, 14 November 2015
From: Shrikant R. Bharadwaj (bharadwaj@lvpei.org)
Subject: **Job opening at LVPEI, Hyderabad (Job)**

The L V Prasad Eye Institute (LVPEI), Hyderabad is seeking to hire bright and enthusiastic Optometrists for all of the positions mentioned below. Candidates will require to apply with their latest copy of resume with a neatly drafted cover letter to Dr Shrikant Bharadwaj at bharadwaj@lvpei.org or to Mr Hari Krishna at harikrishna@lvpei.org. Candidates are expected to clearly identify which of the many positions they are applying for. They may apply for more than one given position at any time. Candidates will undergo a series of interviews and a clinical assessment (wherever applicable) before being selected for these positions.

1. Optometrist for orthoptics clinic and corporate relationship: This unique position for an optometrist involves an amalgamation of clinical practice of binocular vision and orthoptics and interfacing with LVPEI corporate clients for providing vision screening services and eye awareness talks and campaigns. The candidate shall be spending 2 days of their time in corporate relationship and the remaining 4 days in the orthoptic clinic. This clinic is currently headed by Dr PremNandhini Satugunam and the candidate shall actively work with her to engage in patient care, education and research. This position is ideally suited for candidates with Type-A personality who is both clinically astute and can confidently interact with the public.

2. Optometrist for training students at the Bausch & Lomb School of Optometry and for patient care: This combination position is an amalgamation of teaching and patient care services at LVPEI. The candidates will function as a teaching assistant for one or more courses for BS Optometry and Vision Technician students at the Bausch & Lomb School of Optometry and also function as a patient care provider at our Center of Excellence hospital in Hyderabad. Candidates must have a flair for teaching and must be able to face students confidently. The time split between teaching and patient care is some negotiable and can be discussed at the time of interview. Knowledge of Telugu is desirable but not necessary for this position.

3. Optometrist for research in Dr L S Varadharajan's lab: This position is ideal for an Optometrist with a research bent of mind and interest in vision psychophysics. Dr Varadharajan's lab at LVPEI, Hyderabad, focuses on understanding visual functions using psychophysics. The candidate shall participate in all activities of his lab for 4 days of the week and will be engaged in patient care for the remaining 2 days. Candidates who are interested in learning new things and exploring technology and computers are ideally suited for this position.

4. Optometrist for contact lens clinic: The newly expanded contact lens clinic at LVPEI is seeking to hire a bright, young and enthusiastic candidate to participate in its patient care activities, education and research. This candidate shall primarily function in the clinic and will be interfacing with other senior optometrists and ophthalmologists in the department. The contact lens clinic at LVPEI provides the most state of the art care in contact lens available across the world to its patients and also engages in some exciting research related to contact lens optics, infections and new diagnostic tests for detecting corneal disease. The candidate will have an opportunity to engage in all these activities during their tenure at LVPEI.

For further information, please contact: Shrikant R. Bharadwaj (bharadwaj@lvpei.org)

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