



Sri G.V.G. Visalakshi College For Women, Udumalpet-642128

Autonomous and Affiliated to Bharathiar University, Coimbatore

Accredited at \mathcal{A}^+ grade by NAAC (Fourth cycle)

An ISO 9001:2015 Certified Institution

www.gvgvc.ac.in; principal@gvgvc.ac.in Ph.04252-223019 Fax: 04252-233111



REPORT

Health Issues of Electromagnetic Radiation

Supported by DBT - Star College Scheme (2019-2020)

Date: 30.07.2019 Venue : Conference Hall. Time: 1.30 – 3.30

Dr. P. Christopher Selvin, Professor and Head, Department of Medical Physics, Bharathiar University, Coimbatore has delivered a Guest Lecture on “HEALTH ISSUES OF ELECTROMAGNETIC RADIATION”. The guest lecture started with Prayer. Dr. S. Umamaheswari, Associate Professor and Head, Department of Zoology delivered Welcome Address and introduced the speaker.

Dr. P. Christopher Selvin started his talk with different types of electromagnetic spectrum, electromagnetic radiations, their uses and hazards. He talked about how to choose right LED bulb, the Advantages of LED Lights for the Environment,

He gave awareness about the real effects of electromagnetic radiations on human body. But not all colors of light have the same effect. Blue wavelengths—which are beneficial during daylight hours because they boost attention, reaction times, and mood—seem to be the most disruptive at night. And the proliferation of electronics with screens, as well as energy-efficient lighting, is increasing our exposure to blue wavelengths, especially after sundown. Disruption of the circadian rhythms and decreases in melatonin can occur from light exposure at night, shift work, long hours, and/or aging, and has been associated with various serious health concerns, including increased risk of cancers, poor cognition, bone loss, sleep and weight issues, heart problems and more.

Melatonin is a hormone that regulates sleep and your internal body clock. Darkness triggers the release of melatonin, which then starts the sleep process at night. Without it, you experience poor or no sleep and your circadian rhythm gets all out of whack.

He explained the importance of melatonin secretion in brain health. Melatonin hormone secreted by pineal gland (red) at night, regulates body's daily biological

Activity. He added that Melatonin is a powerful antioxidant

Doctors and researchers warn that electromagnetic radiation (EMR) have been linked to a wide variety of health risks ranging from sleeplessness to cancer. In the case of a person using a cell phone, most of the heating effect will occur at the surface of the head, causing its temperature to increase by a fraction of a degree. Mobile phone use >10 years doubles risk of brain cancer. Risk is highest for ipsilateral (on the same side of the head where the instrument is held) exposure.

Too much Exposure to EM radiation has adverse effects on the DNA structure of the cell. A child's brain absorbs up to 10 times the radiation of an adult brain.



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GUEST LECTURE

Venue: Conference Hall I

An interdepartmental guest lecture was organised on 30/07/2019 with Dr. P. Christopher Selvin, Professor and Head, Department of Medical Physics, Bharathiar University, Coimbatore on the topic "Health Issues of Electromagnetic Radiation". He explained the students about different types of electromagnetic spectrum, radiations, their uses and hazards. He created awareness about the real effects of electromagnetic radiations on human body, effect of hormone melatonin circadian rhythm, how to use and choose LED bulb and the advantage of LED lights for the environment. 140 students from B.Sc Zoology, 10 students from chemistry and 20 students from physics were benefited by this programme.

S. Kumar
HOD & Co ordinator

S. Kalaiselvi
N. V. Srinivas
D. Srinivas
S. Srinivas

S. Kalaiselvi
Signature of the Principal



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