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THE ELECTRONICS & TELECOMMUNICATION DEPARTMENT NEWSLETTER



News & **Views** 

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Workshop This month

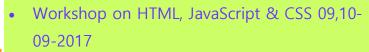
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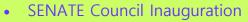
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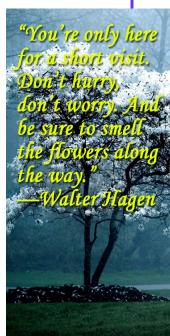
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SWEC Program 14th Sept. 2017—Madhavi Mauskar on behalf of South Western European Corridor, gave a talk on avenues for higher studies in European countries. Topics which were discussed included Selecting various Programs, Assistance in shortlisting Universities, Create LORs and LOMs, guidance in the Visa process etc.







News Views

## HTML, JavaScript and CSS Workshop

Electronics & Telecommunication Engineering Department and Association of Electronics & Telecommunication Engineering Students (ASSETS) of Goa College of Engineering, Farmagudi, Goa in collaboration with The Institution of Electronics & Telecommunication Engineers (IETE), Goa Chapter, organized a two days Workshop on "HTML, CSS and Java Script" on Saturday 16 th September and Sunday 17th September 2017. The Workshop was conducted in the "Computer Center Laboratory" of Electronics & Telecommunication Engineering Department of Goa College of Engineering.

Ms. Gauri Desai, CEO, Thoughtslate Pvt. Ltd., Ponda was the resource person for the workshop. 24 students participated in the workshop, of which 18 students were from Goa College of Engineering, Farmagudi and 6 students were from Agnel Institute of Technology and Design, (AITD) Assgao, Mapusa. The participants were given hands on experience on HTML, CSS ad JavaScript. The participants found the workshop very useful as it enhanced their software skills.

Dr. H. G. Virani, Professor and Head, ETC Department, GEC and also Chairman, IETE, Goa Chapter and Mr. Sangam Prafulla Borkar, Assistant Professor, ETC Department, GEC organized and coordinated the workshop.



## Technical Article

## WS2811/12 LED

WS2811 is a LED driver chip. specifically a RGB LED driver chip. The WS2811 provides 24-bit RGB colour plus constant-current output. The WS2811 can run at a data rate of either 400KHz or 800KHz, although the 800KHz ones seem more common.

It uses a single combined clock and data line. You reset the chain by keeping the input low for around 50usec (less will usually work as well), then start sending 24-bit RGB sequences in a continuous stream. You can daisy chain sevelral of these LED's. The first LED in the chain displays the first RGB value to be sent and passes the rest along the chain, the second displays the second value and so on.

The way the WS2811 protocol works is that there is a low-to-high transition at the beginning of each bit cell, then a high-to-low transition at a variable point within the cell, depending if the bit value is 0 or 1. For a logical zero the transition is near to the beginning of the cell, for a logical one it is later on in the cell. The WS2812 is an RGB LED with a WS2811 control IC built right into the LED.

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