

Bhavan's Vivekananda College,
Sainikpuri, Secunderabad
Dept. of Physics and Electronics

2019-20

To promote scientific communication and to instigate curiosity in the subject, the Department of Physics and Electronics has come up with the student magazine, 'ElectriPhying World'. The 4th issue of the magazine was released on March 7th 2020 by Principal Prof. Y. Ashok. The cover page theme for the 4th issue of the magazine is chosen to be 'India's Race towards 5G' to get in tune with the developments in the field of technology and its implementation to reach the common man. The magazine also covers various articles related to recent developments in Physics and Electronics across the globe, few puzzles and some memes on science to include fun. Students of B.Sc. Physical Sciences also performed a Skit which is followed by interactive sessions.





Department of Physics & Electronics had organized a guest lecture on “Magnetolectric Multiferroics for ultra- low power consumption device applications” on 31-07-2019.



Students of B.Sc. Electronics accompanied by Mrs. M.Prasanna and Mr. T.V.L.N.H Prasad have gone for an Industrial visit to Physitech, Kapra, Hyderabad on 14/12/2019. The students were given demonstrations of the working of Stabilizers and Power Supplies. Power Supply assembling and various modules of Power Supply manufacturing were also demonstrated.





Department of Physics & Electronics had organized a guest lecture on “Artificial Intelligence and Robotics” by Mr T V Prakash Rao Rtd Scientist – G, DRDO and Director ECS Cluster, Bangalore, on 24-07-2019.

A total of 100 students from BSc MECs had attended this program. Students had a very good interaction with the speaker.



PRAGYAN- Intercollegiate Event

An Intercollegiate event- PRAGYAN was organized by the Department of Physics & Electronics to commemorate **the 100th birth anniversary of Dr Vikram Sarabhai, Father of India's Space Programme** on 14th Aug 2019. The guest for this event was Mr T S Prasad, Scientist -F, NRSC, ISRO. In this programme, a total of 205 students of BVC and other colleges had participated. Micro presentation, Poster presentation and Quiz competitions were conducted in this event.

Micro presentation was an individual competition conducted on the topics Cosmology, Astroparticle Physics, Stellar Physics where 9 students participated.

18 teams participated in the Poster presentation competition titled “La vie de Vikram Sarabhai (The life of Vikram Sarabhai)”.

Science Quiz was conducted by the students of BSc MPCs, 30 teams participated.







Visit to ARCI on 20/12/2019

A group of 35 students of B.Sc. Physics and Electronics accompanied by two faculty members Mrs. M. Prasanna and Mrs. V.R. Manjula visited various labs of ARCI, Hyderabad on 20/12/2019. They were taken around to various labs such as CMCT, CNM and CLPM by a group of scientists where they explained to them the current research in fields such as Nano materials, use of different Lasers used for specific purposes such as welding and drilling and materials characterization. Students got the opportunity to see the working of scientific Instruments such as X-Ray diffractometers, TEM, SEM Lasers etc. They were shown the Super Capacitors, Li ion batteries, Anti bacterial garments and high strength ceramics applications made in various Centers of ARCI.



Jubin Mitra 8085 simulator for the lab experiments demonstrations...

8085 Simulator - D:\8085\unit 2\programs\demofile.asm

File Edit Tools Settings Simulation Subroutine View Load Sample Program Help

Editor Assembler Registers Memory Devices

Assembler

* Address	Label	Mnemonics	Hexcode	Bytes	M-Cycles	T-States
✓ 0000		SUB A	97	1	1	4
✓ 0001		MVI B,04	06	2	2	7
0002			04			
✓ 0003		MVI C,03	0E	2	2	7
0004			03			
✓ 0005	LOOP1	ADD B	80	1	1	4
✓ 0006		DCR C	0D	1	1	4
✓ 0007		JNZ LOOP1	C2	3	3	10
0008			05			
0009			00			
✓ 000A		STA 9000	32	3	4	13
000B			00			
000C			90			
✓ 000D		HLT	76	1	2	5

Simulate

Start From → 0000

Run all At a Time Step By Step

Registers :

Register	Value	7	6	5	4	3	2	1	0
Accumulator	00	0	0	0	0	0	0	0	0
Register B	00	0	0	0	0	0	0	0	0
Register C	00	0	0	0	0	0	0	0	0
Register D	00	0	0	0	0	0	0	0	0
Register E	00	0	0	0	0	0	0	0	0
Register H	00	0	0	0	0	0	0	0	0
Register L	00	0	0	0	0	0	0	0	0
Memory(H)	00	0	0	0	0	0	0	0	0

Register	Value	S	Z	*	AC	*	P	*	CY
Flag Register	00	0	0	0	0	0	0	0	0

Type	Value
Stack Pointer(SP)	0000
Memory Pointer (HL)	0000
Program Status Word(PSW)	0000
Program Counter(PC)	0000
Clock Cycle Counter	0
Instruction Counter	0

SOD	SID	INTR	TRAP	R7.5	R6.5	R5.5
0	0	0	0	0	0	0

For SIM instruction

SOD	SDE	*	R7.5	MSE	M7.5	M6.5	M5.5
0	0	0	0	0	0	0	0

For RIM instruction

SID	I7.5	I6.5	I5.5	IE	M7.5	M6.5	M5.5
0	0	0	0	0	0	0	0

No. Converter Tool :

Hexadecimal	Decimal	Binary
0		0

Created by : Jubin Mitra



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PhET-iO Simulations

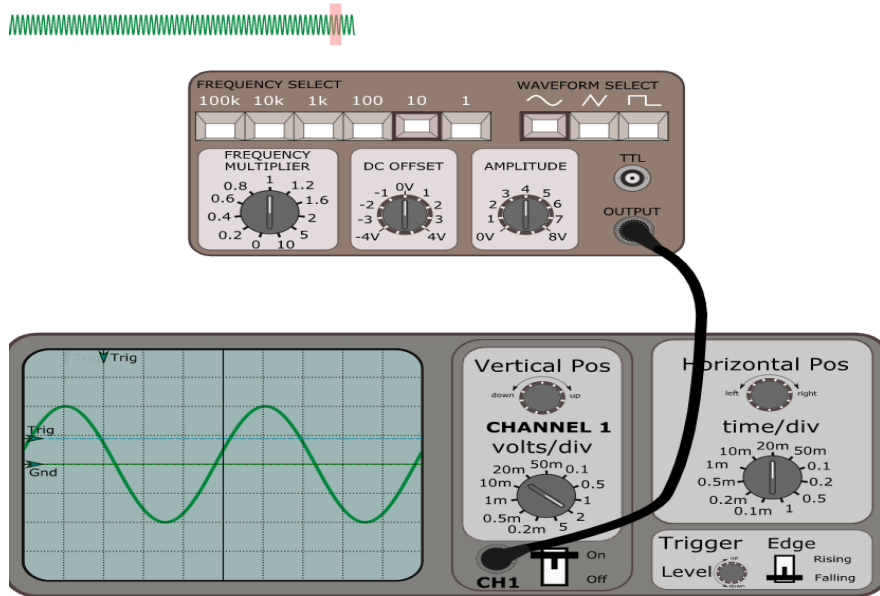
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Teaching Activities

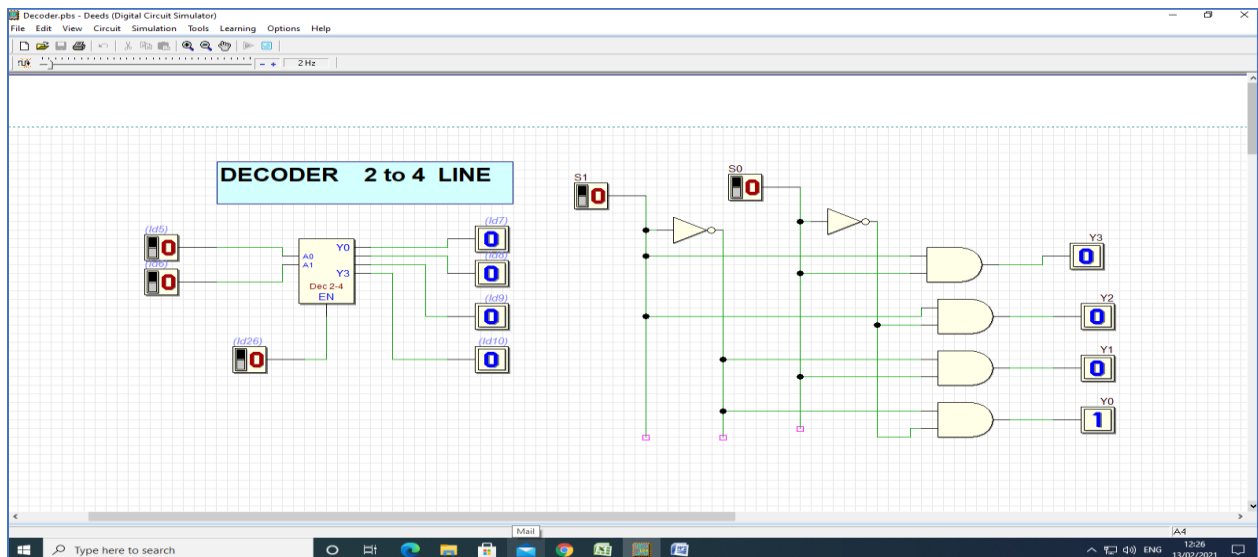
A wide variety of teaching activities have been contributed by the PhET team and its user community, and are available for you to adapt and use in your classroom. If you require a [CC-BY](https://creativecommons.org/licenses/by/4.0/) license, please check the specific activity to see if it is available under CC-BY.

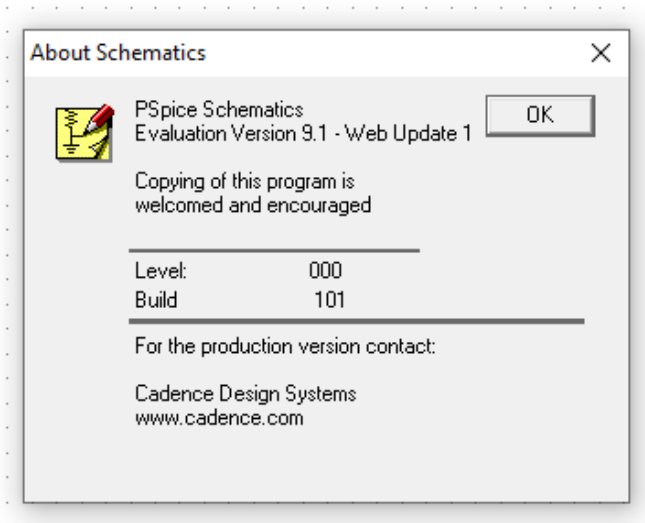
<https://www.falstad.com/circuit/>

← → ↻ Not secure | eleceng.dit.ie/dsp/elab/
Just click on any of the dials or buttons to explore how they work. 1) Check out a youtube video of the simulation in action. 2) Take by David Dorran, TU Dublin



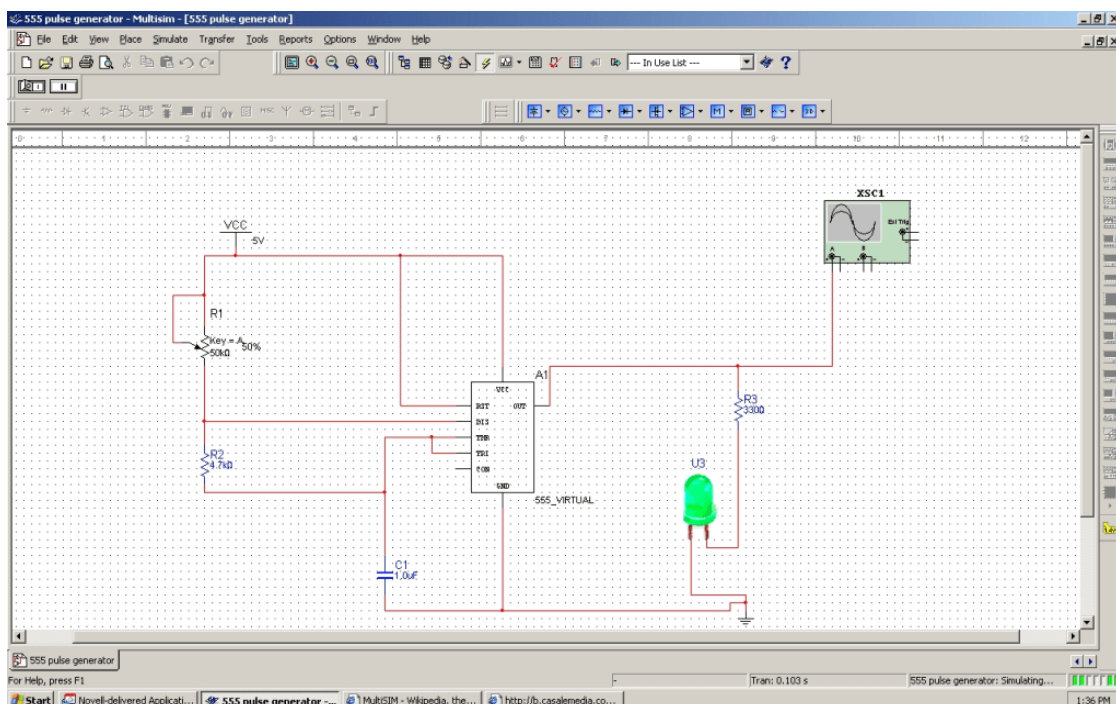
Deeds Digital Circuit Simulator

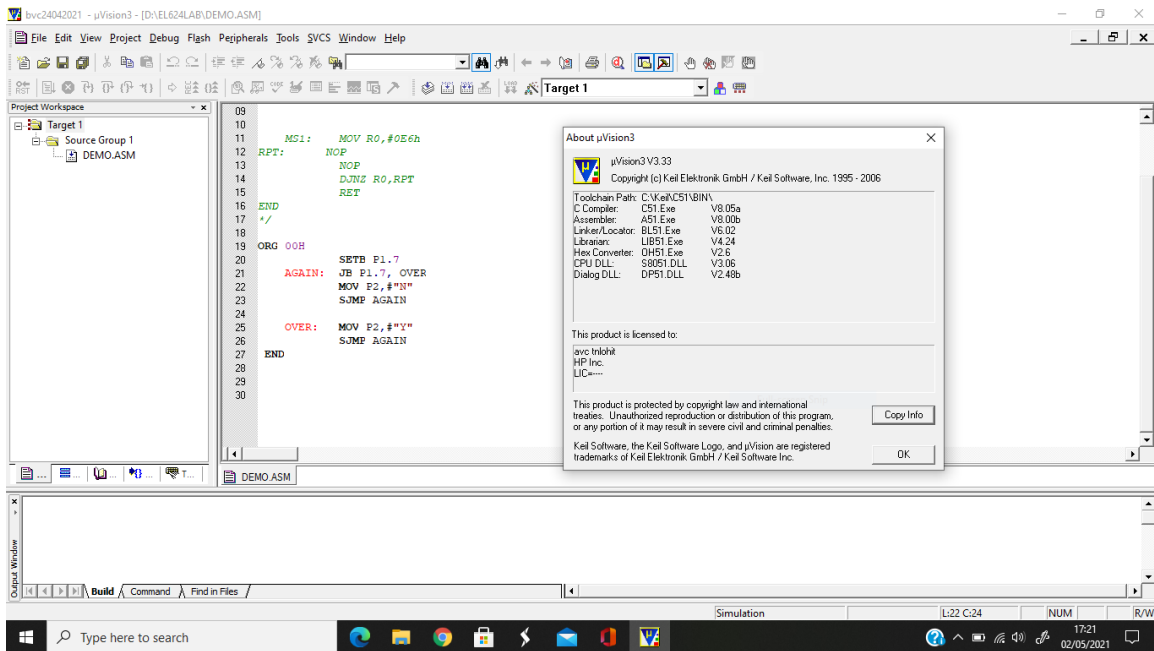




Pspice schematics 9.1 used for lab experiments

NI Multisim is an electronic schematic capture and simulation program which is part of a suite of circuit design programs, along with NI Ultiboard. Multisim is one of the few circuit design programs to employ the original Berkeley SPICE based software simulation.





keil microvision 3 v3.33