University Electrical Engineering

Glossary · every term in the course, A–Z

English
absorption /əbˈsɔːpʃn/
AC circuit analysis
active region
ADC /ˌeɪ diː ˈsiː/
adder /ˈædə/
air gap
aliasing /ˈeɪlɪəsɪŋ/
ammeter /ˈæmiːtə/
ammeter /ˈæmiːtə/
ampere /ˈæmpeə/
Ampere's law
Ampère's law /ˈæmpeəz lɔː/
amplitude modulation
antennas
anti-alias filter
anti-windup
argument /ˈɑːgjuːmənt/
armature
assembly
asymptote /ˈæsɪmptəʊt/

English
at the clock edge
auxiliary equation /ɔːkˈsɪlɪəri ɪˈkweɪʒn/
back-EMF
bandwidth /ˈbændwɪdθ/
base value
baud rate
bias point
BIBO stability
BIBO stability
bilinear transform
binary /ˈbaɪnəri/
Biot-Savart law
Biot–Savart law /ˈbɪɒt ˈsævɑːt lɔː/
bipolar junction transistor
block diagram
Bode plot
Boolean algebra /ˈbuːlɪən ˈældʒɪbrə/
boost
bounce diagram
boundary conditions
breakaway point
breakdown torque
bridge rectifier /brɪdʒ ˈrektɪfaɪə/

English
buck
bus /bʌs/
butterfly
capacitance /kəˈpæsɪtəns/
capacitor /kəˈpæsɪtə/
Carson’s rule
cascade
causality
channel capacity
characteristic equation /ˌkærɪktəˈrɪstɪk ɪˈkweɪʒn/
characteristic impedance
charge /tʃɑːdʒ/
clock /klɒk/
clock edge /klɒk edʒ/
combinational logic /ˌkɒmbɪˈneɪʃənl ˈlɒdʒɪk/
communication systems
commutator /ˈkɒmjuːteɪtə/
complex number /ˈkɒmpleks ˈnʌmbə/
complex power
conductance
conserved /kənˈsɜːvd/
constant-drop model

English
constellation
continuous conduction
control systems
controllability
convolution
copper loss
core loss
corner frequency
coulomb /ˈkuːlɒm/
coupling capacitor
critically damped
curl /kɜːl/
current /ˈkʌrənt/
current divider /ˈkʌrənt dɪˈvaɪdə/
cutoff
cutoff frequency /ˈkʌtɒf ˈfriːkwənsi/
DAC /ˌdiː eɪ ˈsiː/
damping /ˈdæmpɪŋ/
damping ratio
De Morgan’s theorem /də ˈmɔːgənz ˈθɪərəm/
debounce
decibel

English

decimation

decoder
/dɪˈkəʊdə/
derivative
/dɪˈrɪvətɪv/
derivative
/dɪˈrɪvətɪv/
determinant
/dɪˈtɜːmɪnənt/
DFT

difference equation

digital logic design
/ˈdɪdʒɪtl ˈlɒdʒɪk dɪˈzaɪn/
digital signal processing

dipole
/ˈdaɪpəʊl/
direct-current circuit analysis
/daɪˈrekt ˈkʌrənt ˈsɜːkɪt əˈnæləsɪs/
displacement current
/dɪˈspleɪsmənt ˈkʌrənt/
divergence
/daɪˈvɜːdʒəns/
dominant pole

don't-care
/dəʊnt keə/
doping

DTFT

duty cycle

eddy current

eigenvalue
/ˈaɪgənvæljuː/
electrical machines and power systems

English

electromagnetics

electronics I

encirclement

energy
/ˈenədʒi/
entropy
/ˈentrəpi/
envelope detector

Euler's identity
/ˈɔɪləz aɪˈdentɪti/
excitation

excitation table
/eksɪˈteɪʃn ˈteɪbl/
expectation
/ekspɪkˈteɪʃn/
exponential model
/ˌekspəˈnenʃl ˈmɒdl/
farad
/ˈfæræd/
fault current

feedback
/ˈfiːdbæk/
fetch-decode-execute cycle

fetch–decode–execute cycle

FFT

field weakening

filter
/ˈfɪltə/
filter capacitor

finite state machine
/ˈfaɪnaɪt steɪt məˈʃiːn/

FIR

flip-flop
/flɪp flɒp/
flux
/flʌks/
flux
/flʌks/
Fourier series
/ˈfɔːrɪə ˈsɪəriːz/
Fourier transform

frequency deviation

frequency response

Friis equation

full adder
/fʊl ˈædə/
fundamental
/ˌfʌndəˈmentl/
gain crossover

gain margin

gain-bandwidth product
/geɪn ˈbændwɪdθ ˈprɒdʌkt/
Gauss's law
/ˈgaʊsɪz lɔː/
golden rule
/ˈgəʊldn ruːl/
good conductor

GPIO

gradient
/ˈgreɪdɪənt/
guide wavelength

half adder
/hɑːf ˈædə/
half-wave rectifier

Hamming code

Hamming window

hardware description
language
/ˈhɑːdweə dɪˈskrɪpʃn ˈlæŋgwɪdʒ/
harmonic
/hɑːˈmɒnɪk/
hazard
/ˈhæzəd/
henry
/ˈhenri/
hexadecimal
/ˌheksəˈdesɪml/
homogeneous
/ˌhɒməˈdʒiːniəs/
hysteresis

I2C

ideal model

ideal op-amp

ideal operational amplifier
/aɪˈdɪəl ˌɒpəˈreɪʃənl ˈæmplɪfaɪə/
IIR

impedance
/ɪmˈpiːdəns/
impulse response

impulse response

inductance
/ɪnˈdʌktəns/
inductor
/ɪnˈdʌktə/
infinite bus

English

initial condition
/ɪˈnɪʃl kənˈdɪʃn/
instantaneous frequency

integral
/ˈɪntɪgrəl/
interpolation
/ɪnˌtɜːpəˈleɪʃn/
interrupt
/ˈɪntərʌpt/
interrupt service routine
/ˈɪntərʌpt ˈsɜːvɪs ruːˈtiːn/
intrinsic impedance

intrinsic impedance

inverting amplifier
/ɪnˈvɜːtɪŋ ˈæmplɪfaɪə/
joule
/dʒuːl/
Karnaugh map
/ˈkɑːnɔː mæp/
kilowatt-hour
/ˈkɪləwɒt ˈaʊə/
Kirchhoff's current law
/ˈkɜːkhɒfs ˈkʌrənt lɔː/
Kirchhoff's voltage law
/ˈkɜːkhɒfs ˈvəʊltɪdʒ lɔː/
Laplace transform

latch
/lætʃ/
lead compensator

leakage

linear phase

linear system
/ˈlɪnɪə ˈsɪstəm/
linear time-invariant

English

linearity
/lɪˈnɪərɪti/
linearization
/ˌlɪnɪəraɪˈzeɪʃn/
loop
/luːp/
loop gain

Lorentz force

lossy medium

LSB

magnetic flux
/mægˈnetɪk flʌks/
magnetomotive force

marginal stability

mathematical methods
/ˌmæθɪˈmætɪkl ˈmeθədz/
matrix inverse
/ˈmeɪtrɪks ɪnˈvɜːs/
maximum power transfer
/ˈmæksɪməm ˈpaʊə ˈtrænsfɜː/
Mealy machine
/ˈmiːli məˈʃiːn/
measure
/ˈmeʒə/
memory
/ˈmeməri/
memory-mapped I/O

memory-mapped I/O

memory-mapped register

mesh analysis
/meʃ əˈnæləsɪs/
mesh current
/meʃ ˈkʌrənt/

English

microcontroller

microprocessors and
embedded systems

Miller capacitance

modelling
/ˈmɒdəlɪŋ/

modulation index

modulus
/ˈmɒdjʊləs/

Moore machine
/muə məˈʃiːn/

MOSFET

multimeter
/ˌmʌltɪˈmiːtə/

multiplexer
/ˈmʌltɪpleksə/

natural frequency
/ˈnætʃərəl ˈfriːkwənsi/

natural frequency
/ˈnætʃərəl ˈfriːkwənsi/

natural response
/ˈnætʃərəl rɪˈspɒns/

negative feedback
/ˈnegətɪv ˈfiːdbæk/

nodal analysis
/ˈnəʊdl əˈnæləsɪs/

node
/nəʊd/

noise figure

non-inverting amplifier
/nɒn ɪnˈvɜːtɪŋ ˈæmplɪfaɪə/

Norton's theorem
/ˈnɔːtnz ˈθɪərəm/

Nyquist criterion

English

Nyquist criterion

ohm
/əʊm/

Ohm's law
/əʊmz lɔː/

open-circuit test

open-circuit voltage

operating point

operational amplifier
/ˌɒpəˈreɪʃənl ˈæmplɪfaɪə/

ordinary differential
equation
/ˈɔːdɪnəri ˌdɪfəˈrenʃl ɪˈkweɪʒn/

orthogonality
/ˌɔːθəgəˈnælɪti/

overdamped

overflow
/ˌəʊvəˈfləʊ/

overshoot
/ˌəʊvəˈʃuːt/

parallel
/ˈpærəlel/

partial fraction
/ˈpɑːʃl ˈfrækʃn/

particular
/pəˈtɪkjʊlə/

passive sign convention
/ˈpæsɪv saɪn kənˈvenʃn/

peak inverse voltage

peak time

per-unit

phase
/feɪz/

phase crossover

English

phase margin

phasor
/ˈfeɪzɔː/
PID controller

piecewise-linear model

plane wave

plant
/plænt/
pn junction

polarisation
/ˌpəʊlərɑɪˈzeɪʃn/
pole
/pəʊl/
pole placement

poles and zeros

polling

polyphase

potential
/pəˈtenʃl/
power
/ˈpaʊə/
power angle

power factor

power factor correction

power flow

power limit

power-factor correction

Poynting vector
/ˈpɔɪntɪŋ ˈvektə/
prescaler

English

prewarp

probability distribution
/ˌprɒbəˈbɪlɪti ˌdɪstrɪˈbjuːʃn/
processing gain

program counter
/ˈprəʊgræm ˈkaʊntə/
proportional
/prəˈpɔːʃənl/
Q factor

quantisation
/ˌkwɒntaɪˈzeɪʃn/
raised-cosine

random variable
/ˈrændəm ˈveərɪəbl/
range
/reɪndʒ/
reactive compensation

rectangular pulse
/rekˈtæŋgjʊlə pʌls/
reference node
/ˈrefrəns nəʊd/
register
/ˈredʒɪstə/
reluctance

resistor
/rɪˈzɪstə/
resolution
/ˌrezəˈluːʃn/
resonance
/ˈrezənəns/
ripple
/ˈrɪpl/
ripple counter
/ˈrɪpl ˈkaʊntə/
rise time

English
root locus
rotating field
Routh array
saturation /ˌsætʃəˈreɪʃn/
saturation region
sequential logic /siːˈkwenʃl ˈlɒdʒɪk/
series /ˈsɪəriːz/
series motor
settling time
shift register /ʃɪft ˈredʒɪstə/
short-circuit test
shunt motor
sideband
signal /ˈsɪgnl/
signals and systems
simulation /ˌsɪmjʊˈleɪʃn/
singular /ˈsɪŋgjʊlə/
skin depth
slack bus
slip
small-signal
source transformation /sɔːs trænsfɔːˈmeɪʃn/

English
SPI
square-law model
squirrel-cage
standard deviation /ˈstændəd ˌdiːvɪˈeɪʃn/
state diagram /steɪt ˈdaɪəgræm/
state space
state variable
static margin
steady-state error
step response /step rɪˈspɒns/
summing amplifier
superposition /ˌsuːpəpəˈzɪʃn/
synchronous counter /ˈsɪŋkrənəs ˈkaʊntə/
synchronous machine
synchronous rectification
synchronous speed
synthesis /ˈsɪnθəsɪs/
synthesizable /ˈsɪnθəsaɪzəbl/
system /ˈsɪstəm/
system function
system type
telegrapher equations

English
testbench /'testbentʃ/
Thévenin's theorem
three-phase
threshold /'θreʃəʊld/
time constant /taɪm 'kɒnstənt/
time invariance
time-bandwidth trade-off
timer
time–bandwidth trade-off
toggle /'tɒgl/
transfer function
transformer /træns'fɔ:mə/
transient response /'trænsɪənt rɪ'spɒns/
transimpedance amplifier
transition matrix /træn'sɪʃn 'meɪtrɪks/
twiddle factor
two's complement /tu:z 'kɒmplɪmənt/
two-port
two-port network
UART
underdamped

English
unit circle /'ju:nɪt 'sɜ:kl/
variance /'veərɪəns/
velocity error constant
virtual ground
virtual short /'vɜ:tʃu:əl ʃɔ:t/
volt /vəʊlt/
volt-second balance
voltage /'vəʊltɪdʒ/
voltage divider /'vəʊltɪdʒ dɪ'vaɪdə/
voltage divider bias
voltage follower
voltage gain
watchdog
watt /wɒt/
waveguide wavelength
wound rotor
z-transform
zener diode