University Mechanical Engineering

Glossary · every term in the course, A–Z

English

acceleration
/əkˌselə'reɪʃn/
angle of twist

angular acceleration
/'æŋgjʊlə əkˌselə'reɪʃn/
angular momentum
/'æŋgjʊlə məʊ'mentəm/
angular velocity
/'æŋgjʊlə və'lɒsɪti/
applied loads

atomic packing factor

basis
/'beɪsɪs/
boundary work

buckling

Carnot

casting
/'kæstɪŋ/
centre of gravity
/'sentə ɒv 'grævɪti/
centroid
/'sentrɔɪd/
ceramic

characteristic equation
/ˌkærɪktə'rɪstɪk ɪ'kweɪʒn/
coefficient of kinetic friction
/ˌkəʊɪ'fɪʃənt ɒv kɪ'netɪk 'frɪkʃn/
coefficient of restitution
/ˌkəʊɪ'fɪʃənt ɒv rɪstɪ'tju:ʃn/
coefficient of static friction
/ˌkəʊɪ'fɪʃənt ɒv 'stætɪk 'frɪkʃn/

composite
/'kɒmpəzɪt/
compression
/kəm'preʃn/
concurrent
/kən'kʌrənt/
condition number

confidence interval
/'kɒnfɪdəns 'ɪntəvl/
control volume

corrosion
/kə'rəʊʒn/
couple
/'kʌpl/
crystal structure

curl
/kɜ:l/
damped frequency

damping ratio

definite integral
/'defɪnət 'ɪntɪgrəl/
deflection
/dɪ'flekʃn/
derivative
/dɪ'rɪvətɪv/
direction
/daɪ'rekʃn/
dislocation

displacement
/dɪ'spleɪsmənt/
distributed load
/'dɪstrɪbju:tɪd ləʊd/
divergence
/daɪ'vɜ:dʒəns/
divergence theorem

English

ductility
/dʌkˈtɪlɪti/
dynamics
/daɪˈnæmɪks/
eccentric loading

eigenvalue
/ˈaɪgənvæljuː/
eigenvector
/ˈaɪgənvektə/
elastic curve

energy method

engineering materials

engineering statics
/ˌendʒɪˈnɪərɪŋ ˈstætɪks/
engineering stress

entropy
/ˈentrəpi/
equation of motion

Euler method

eutectoid

expanded uncertainty

fatigue
/fəˈtiːg/
fixed support
/fɪkst səˈpɔːt/
flexure formula

flux
/flʌks/
force
/fɔːs/
frame
/freɪm/
frames and machines
/freɪmz ænd məˈʃiːnz/

English

free-body diagram
/friː ˈbɒdi ˈdaɪəgræm/
friction
/ˈfrɪkʃn/
glass transition

gradient
/ˈgreɪdɪənt/
grain boundary

grain refinement

heat treatment

impending slip
/ɪmˈpendɪŋ slɪp/
impulse
/ˈɪmpʌls/
instant centre

isentropic

kinetic energy
/kɪˈnetɪk ˈenədʒi/
lever rule

line of action
/laɪn ɒv ˈækʃn/
linear momentum
/ˈlɪnɪə məʊˈmentəm/
load
/ləʊd/
magnification factor

magnitude
/ˈmægnɪtjuːd/
martensite

mass moment of inertia

material index

mathematical methods
/ˌmæθɪˈmætɪkl ˈmeθədz/

English

mechanics of materials

method of joints
/ˈmeθəd ɒv dʒɔɪnts/
method of sections
/ˈmeθəd ɒv ˈsekʃnz/
Mohr's circle

moment
/ˈməʊmənt/
moment arm
/ˈməʊmənt ɑːm/
natural frequency
/ˈnætʃərəl ˈfriːkwənsi/
newton
/ˈnjuːtn/
normal force
/ˈnɔːml fɔːs/
normal stress

particle
/ˈpɑːtɪkl/
pearlite

phase diagram

pin
/pɪn/
Poisson's ratio

polar coordinates
/ˈpəʊlə kəʊˈɔːdɪnəts/
position vector
/pəˈzɪʃn ˈvektə/
potential energy
/pəˈtenʃl ˈenədʒi/
precipitate
/prɪˈsɪpɪteɪt/
principal stress

projectile motion
/prəˈdʒektaɪl ˈməʊʃn/

English

propagation of uncertainty

property diagram

quality
/ˈkwɒlɪti/
quenching

Rankine cycle

reaction
/rɪˈækʃn/
resonance
/ˈrezənəns/
resultant
/rɪˈzʌltənt/
rigid body
/ˈrɪdʒɪd ˈbɒdi/
roller
/ˈrəʊlə/
rolling without slipping
/ˈrəʊlɪŋ wɪˈðaʊt ˈslɪpɪŋ/
rotating frame
/rəʊˈteɪtɪŋ freɪm/
round-off error

rule of mixtures

saturation dome

Simpson's rule

slider-crank mechanism

solidification
/səˌlɪdɪfɪˈkeɪʃn/
spring constant
/sprɪŋ ˈkɒnstənt/
state
/steɪt/
statically determinate
/ˈstætɪkli dɪˈtɜːmɪnət/
steady flow

English
strain /streɪn/
strain hardening
tempering
tension /ˈtenʃn/
thermodynamics /ˌθɜːməʊdaɪˈnæmɪks/
tipping
torque /tɔːk/
torsion /ˈtɔːʃn/
toughness
trajectory /trəˈdʒektəri/
transverse shear
trapezoidal rule /ˈtræpɪzɔɪdl ruːl/
true stress
truncation error
truss /trʌs/
two-force member /tuː fɔːs ˈmembə/
Type A uncertainty
T–s diagram
uncertainty /ʌnˈsɜːtənti/
underdamped
vapor-compression cycle
velocity /vəˈlɒsɪti/

English
viscoelasticity
volume of revolution /ˈvɒljuːm ɒv ˌrevəˈluːʃn/
Weibull modulus
work /wɜːk/
yield strength
Young's modulus
zero-force member /ˈzɪərəʊ fɔːs ˈmembə/