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/

English

composite
/ˈkɒmpəzɪt/
compression
/kəmˈpreʃn/
concurrent
/kənˈkʌrənt/
condition number

confidence interval
/ˈkɒnfɪdəns ˈɪntəvl/
control volume

corrosion
/kəˈrəʊʒn/
couple
/ˈkʌpl/
crystal structure

curl
/kɜːl/
damped frequency

damping ratio

definite integral
/ˈdefɪnət ˈɪntɪgrəl/
deflection
/dɪˈflekʃn/
derivative
/dɪˈrɪvətɪv/
direction
/daɪˈrekʃn/
dislocation

displacement
/dɪˈspleɪsmənt/
distributed load
/ˈdɪstrɪbjuːtɪd ləʊd/
divergence
/daɪˈvɜːdʒəns/
divergence theorem

English

ductility
/dʌk'tılıti/
dynamics
/daɪ'næmıks/
eccentric loading

eigenvalue
/'aɪgənvælju:/
eigenvector
/'aɪgənvektə/
elastic curve

energy method

engineering materials

engineering statics
/ˌendʒɪ'nıərıŋ 'stætıks/
engineering stress

entropy
/'entrəpi/
equation of motion

Euler method

eutectoid

expanded uncertainty

fatigue
/fə'ti:g/
fixed support
/fıkst sə'pɔ:t/
flexure formula

flux
/flʌks/
force
/fɔ:s/
frame
/freım/
frames and machines
/freımz ænd mə'ʃi:nz/

English

free-body diagram
/fri: 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
/ˈmægnɪtju:d/
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/