

VIB2021 : Vibrations problems

Number of participants: 16

1

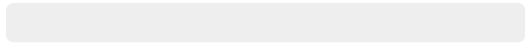
For pedestrian bridges,
excessive vibrations are
usually caused by



2

In high-rise buildings,
excessive vibrations are
usually caused by

People in the
building



0%

0
votes

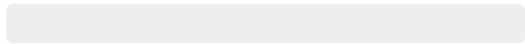
✓ Wind



0%

0
votes

✓ Earthquakes



0%

0
votes

3

Cite a few examples of machine induced vibrations

Helicopter

Washing machine, lathe, more in general any rotatory machine

Periodic Rotation of motor

Washing machine

Car engine, washing machine

Diesel generator

washing machine vibrating

Engine of a car

Washing machine

Generator

Turbine, Traffic

Car

Washing machine

4

Cite a few examples of precision equipment which should be protected from vibrations

Gyroscope calibration

Focusing lens

Electronic components

Mill or lathe, gyroscope, distance sensor

weighing scale

Microscope

Buildings, microscope

Microscope

Microscope

Drills

Microscope

5

The most common problem with light poles and chimneys is

turbulent wind
excitation



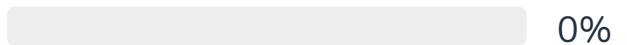
25%
3
votes

✓ vortex induced
vibrations



75%
9
votes

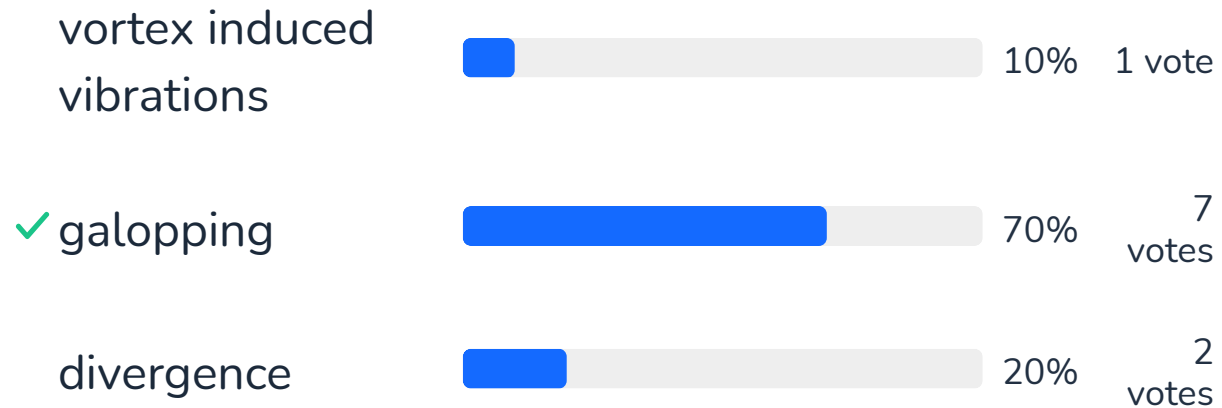
galloping
instabilities



0%
0
votes

6

A common problem
encountered with power lines
is



7

What is the most dangerous problem related to vibrations for aircrafts ?

Dismemberment

Flutter of the wings due to excessive airspeed

Flutter instability

flutter on the wings or tail

Flutter

Flutter

aeroelastic flutter

8

What is the main difference between VIV and instabilities like galloping and flutter ?

VIV is periodic?

The amplitude (limited for VIV and unlimited for galloping and flutter)

Viv is more regular

In viv amplitude is limited

