

Forum:Seminar papers/Biophysics/2. LF/2012-2013/Group 2

Group 2:

Tissue biomechanics

Subquestions

- Harmonic oscillator (simple)
- Driven harmonic oscillator
- Elasticity
- Hook's law
- Elastic properties of tissues
- Young's modulus
- Elasticity and stiffness on subcellular level: role of collagen, elastin and intercellular matrix
- Mechanical characteristic of muscle, connective tissue, bone and bone connection
- Tissue replacement from mechanical point of view

Biosignals

Subquestions

- Examined subject as a physical system
- Time and physical dimensions of biosignals
- Physical nature of different biosignals
- Biosignal characteristics
- Periodicity and quasiperiodicity
- Frequency and power spectra
- Biosignal sensors and converters
- Polygraphic record
- Examples of examination methods
- Biofeedback

Responsibility for the page content

Every subquestion should be developed by one student. First, type the username (and the real first name and surname, if differs) of students in the following table:

Subquestion (Link to the subquestion)	Developed by username (First_name Surname)
Harmonic oscillator	User:Trevor (Trevor Dudley)
Driven harmonic oscillator	User:kuijpers (Daniël Kuijpers)
Elasticity	User:MartaGlasenapp (MartaGlasenapp)
Hook's law	User: Fatemah (Fatemah Matuk)
Elastic properties of tissues	User:Matildam (Matilda Meinshausen)
Young's modulus	User:Mohammed (Mohammed Zubaylah)
Elasticity and stiffness on subcellular level	User: Luca (Luca Mengozzi)
Mechanical characteristic of muscle, connective tissue, bone and bone connection	User:Szandra122 (Alexandra Petohazi)
Tissue replacement from mechanical point of view	User:AgataGraczynska (Agata Graczynska)
Examined subject as a physical system	User:Abo Ghazi (Faisal Alajaily)
Time and physical dimensions of biosignals	User:alnakhla (alnakhli abdulaziz)
Physical nature of different biosignals	User:MaryJoe (Maria Jaros)
Biosignal characteristics	User:Sara Alyateem (Sara Alyateem)
Periodicity and quasiperiodicity	User:Jppostmus (Jan Pieter Postmus)
Frequency and power spectra	User:Mirza92 (Mirza Alkhater)
Biosignal sensors and converters	User:Murtada (Murtada Alhussian)
Polygraphic record	User:Fatemh Aman (Fatemh Aman)
Examples of examination methods	User:pengels1 (Patrick Engels)
Biofeedback	User:Nasser (Nasser Albraq)

Developing subquestions

Click on your red coloured subquestion on the table above. The appropriate edit window will be opened and you will start creating the content.