Selezione pubblica, per titoli ed esami, per l'assunzione di una unità di tecnologo ai sensi dell'art. 24-bis della L. 240/2010, con contratto di lavoro a tempo pieno e determinato della durata di diciotto mesi, prorogabile per ulteriori dodici mesi, con inquadramento nella categoria D – posizione economica D3, per le esigenze della Scuola Superiore Sant'Anna nell'ambito del progetto BRIEF: "Biorobotics Research and Innovation Engineering Facilities" finanziato dall'Unione Europea – NextGeneration EU attraverso il Piano Nazionale di Ripresa e Resilienza (PNRR).

TRACCIA n.1

1. **Quesito Tecnico**

Si illustri almeno una possibile topologia circuitale di un driver di tensione ad alto voltaggio (>5kV)

2. **Quesito Teorico sulle fonti interne alla Scuola**

Da chi è nominato il Rettore e le sue principali funzioni.

3. **Quesito Teorico di Informatica**

Cosa si intende per memoria all'interno di un calcolatore, tipologie di memorie e loro funzioni

4. **Verifica sulla lingua inglese**

Review

Electroactive Polymer-Based Composites for Artificial Muscle-like Actuators: A Review

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Abstract: Unlike traditional actuators, such as piezoelectric ceramic or metallic actuators, polymer actuators are currently attracting more interest in biomedicine due to their unique properties, such as light weight, easy processing, biodegradability, fast response, large active strains, and good mechanical properties. They can be actuated under external stimuli, such as chemical (pH changes), electric, humidity, light, temperature, and magnetic field. Electroactive polymers (EAPs), called 'artificial muscles', can be activated by an electric stimulus, and fixed into a temporary shape. Restoring their permanent shape after the release of an electrical field, electroactive polymer is considered the most attractive actuator type because of its high suitability for prosthetics and soft robotics applications. However, robust control, modeling non-linear behavior, and scalable fabrication are considered the most critical challenges for applying the soft robotic systems in real conditions. Researchers from around the world investigate the scientific and engineering foundations of polymer actuators, especially the principles of their work, for the purpose of a better control of their capability and durability. The activation method of actuators and the realization of required mechanical properties are the main restrictions on using actuators in real applications. The latest highlights, operating principles, perspectives, and challenges of electroactive materials (EAPs) such as dielectric EAPs, ferroelectric polymers, electrostrictive graft elastomers, liquid crystal elastomers, ionic gels, and ionic polymer–metal composites are reviewed in this article.

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