

کارگاه های جنب شانزدهمین مدرسه تابستانه پژوهشگاه رویان ۳۰ تیر لغایت ۱ مرداد ۱۴۰۴

Speaker	Workshop title	Workshop outline	Date & Time
Elaheh Lotfi	MEA Data Analysis and Closed-Loop Systems in Cultured Neuronal Networks	<ol style="list-style-type: none"> <li>0. Introduction &amp; Experimental Setup with MEA Technology</li> <li>1. From Raw Signals to Spikes: Detection &amp; Sorting</li> <li>2. Understanding Neural Activity: Spike Train &amp; Network Analysis</li> <li>3. Mapping Neural Footprints: Electrical Image Analysis</li> <li>4. Training Neurons in Real-Time: Closed-Loop Systems</li> </ol>	<b><u>First day workshop</u></b> <b>21 July 2025</b> (۳۰ تیر ۱۴۰۴) <b>14:00_17:00</b>
Ehsan Khormali	Hands-on AI for Medical Data Analysis	<ol style="list-style-type: none"> <li>1. Introduction to AI in Medicine</li> <li>2. Medical Data Types &amp; AI Applications</li> <li>3. Hands-On: Applying AI to Medical Data</li> <li>4. Q&amp;A, Next Steps &amp; Conclusion</li> </ol>	<b><u>Second day workshop</u></b> <b>22 July 2025</b> (۳۱ تیر ۱۴۰۴) <b>14:00_17:00</b>
Farideh Shakerian	AI application in system neuroscience	<ol style="list-style-type: none"> <li>1. Introduction to Systems Neuroscience</li> <li>2. Technical and Conceptual Advances in Systems Neuroscience</li> <li>3. AI and Systems Neuroscience</li> <li>4. Neural Recording Techniques                             <ol style="list-style-type: none"> <li>a. Paradigm control (experimental design)</li> <li>b. Single-cell recording</li> <li>c. Behavioral monitoring</li> </ol> </li> <li>5. AI Applications in Neural Data Analysis                             <ol style="list-style-type: none"> <li>a. Spike train analysis &amp; representation</li> <li>b. Single-cell coding principles</li> <li>c. Population coding mechanisms</li> <li>d. Neural network models in neuroscience</li> </ol> </li> </ol>	<b><u>Third day workshop</u></b> <b>23 July 2025</b> (۱ مرداد ۱۴۰۴) <b>14:00_17:00</b>