

Презентација одсека:

ФИЗИЧКА ЕЛЕКТРОНИКА

<http://www.nobel.etf.bg.ac.rs>

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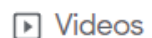
key enabling technologies



All



Images



Videos



News



Maps



More

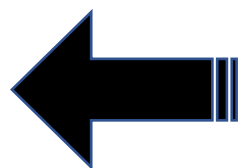
Tools

About 269,000,000 results (0.48 seconds)

Key Enabling Technologies (KETs) – a group of six technologies: micro and **nanoelectronics**, **nanotechnology**, industrial **biotechnology**, **advanced materials**, **photonics**, and advanced manufacturing technologies – increase industrial innovation to address societal challenges and creating advanced and sustainable economies.

① НАНОЕЛЕКТРОНИКА И
ФОТОНИКА

② БИОМЕДИЦИНСКИ И
ЕКОЛОШКИ ИНЖЕЊЕРИНГ



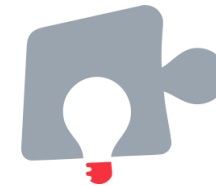


Биомедицински и Еколошки Инжењеринг (БЕИ)

Примене јонизујућег и нуклеарног зрачења



РЕПУБЛИКА СРБИЈА
ФОНД ЗА
ИНОВАЦИОНУ
ДЕЛАТНОСТ



1 Нуклеарна енергија



физика нуклеарних реактора →



2 Индустриска радиографија



недеструктивно тестирање →



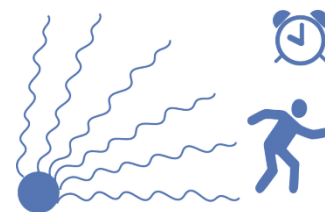
3 Детекција и мерење зрачења



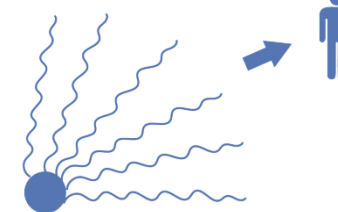
дозиметрија



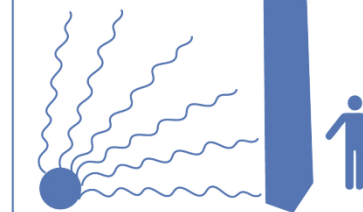
4 Заштита од зрачења



Limit Time



Increase Distance



Use Shielding

биолошки ефекти зрачења



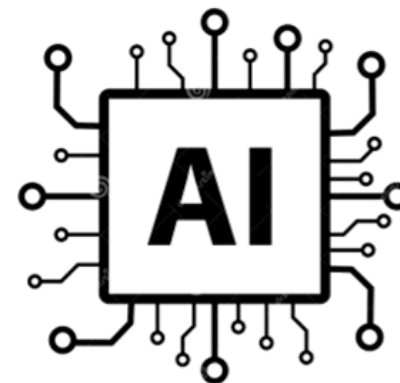
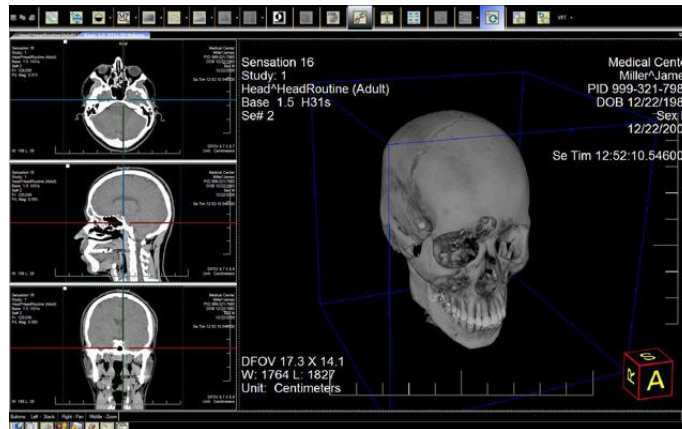
Биомедицински и Еколошки Инжењеринг (БЕИ)

Медицинске примене јонизујућег, нуклеарног и ласерског зрачења

5 Физичко-технички принципи рада уређаја



6 Медицинско сликање → радиографија (X зраци) и нуклеарна медицина (гама зраци)





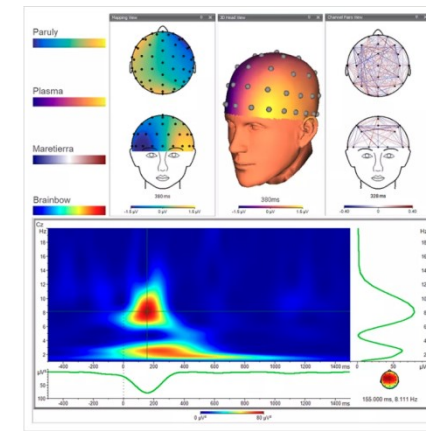
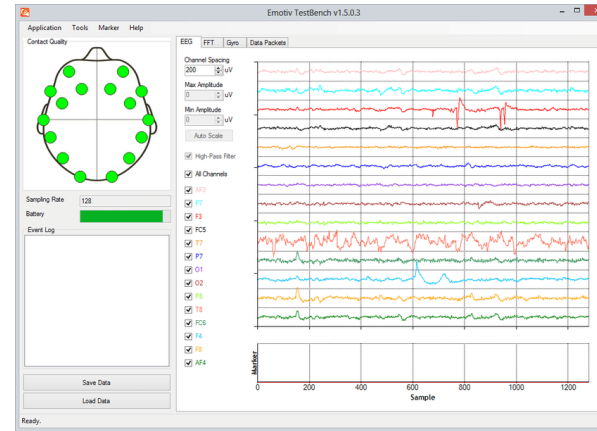
Биомедицински и Еколошки Инжењеринг (БЕИ)

Биофизички системи + Биоматеријали + Наноматеријали

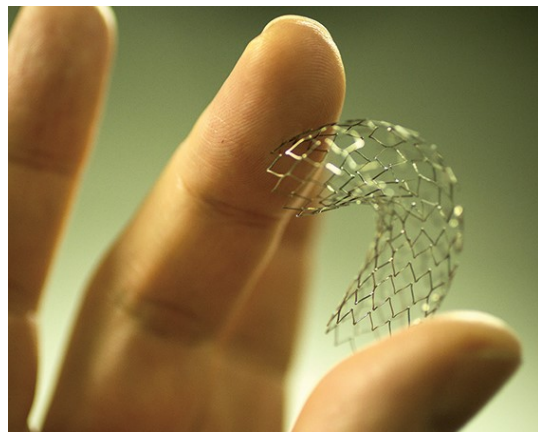
7 Биомедицинска инструментација



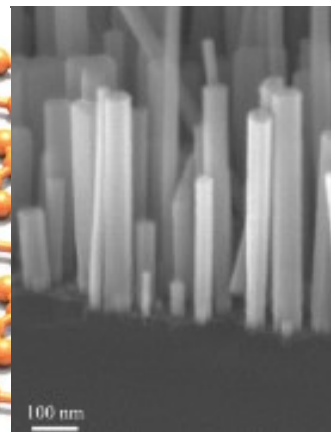
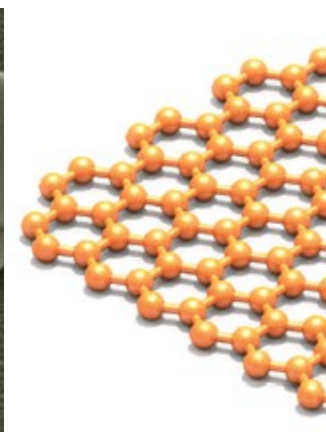
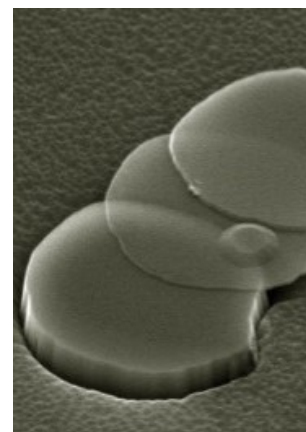
8 Електрофизиолошки сигнали (EKG, EEG): аквизиција, обрада и анализа



9 Биоматеријали: имплантати, вештачка ткива ...



10 Наноматеријали: графен, наночестице ...

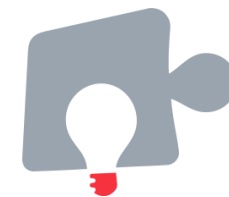


Циљана достава лекова + Радиотерапија поспешена наночестицама + Monte Carlo симулације транспорта зрачења ...



Наноелектроника и фотоника (НФ)

РЕПУБЛИКА СРБИЈА
ФОНД ЗА
ИНОВАЦИОНУ
ДЕЛАТНОСТ



Примене ласера

3 Нова OTN/ROADM оптичка платформа за 5G мреже



https://www.opli.net/opli_magazine/eo/2022/an-optical-computer-that-operates-without-electricity-march-news/

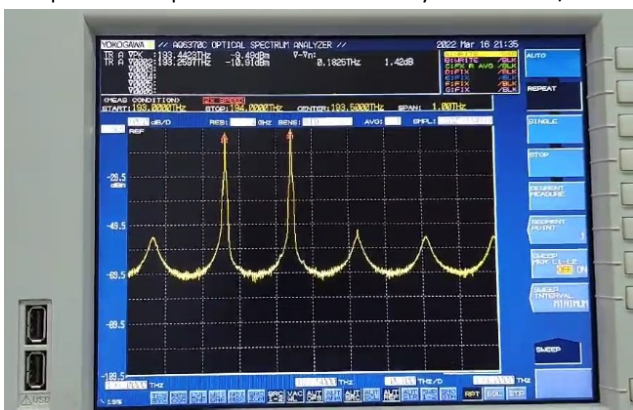


<https://velodynelidar.com/blog/guide-to-lidar-wavelengths/>

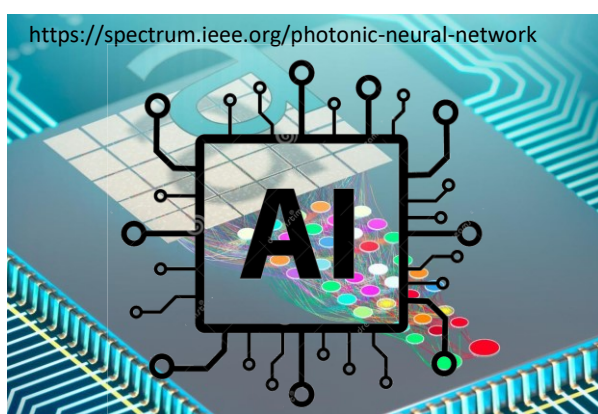


IBM is using light, instead of electricity, to create ultra-fast computing

The company's researchers built a light-based tensor core that could be used, among other applications, for autonomous vehicles.



Реконфигурабилни nand/nor гејт на бази ласера



December 8th, 2021 | 6 min read

Intel Opens Integrated Photonics Research Center



June 28th, 2022 | 3 min read

New Integrated Photonics Research from Intel Labs

Intel demonstrates a tightly controlled eight-wavelength laser array on a silicon

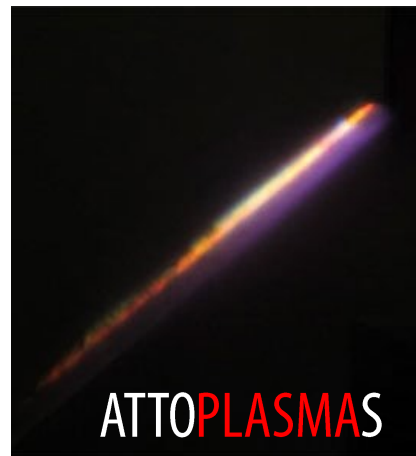


Наноелектроника и фотоника (НФ)

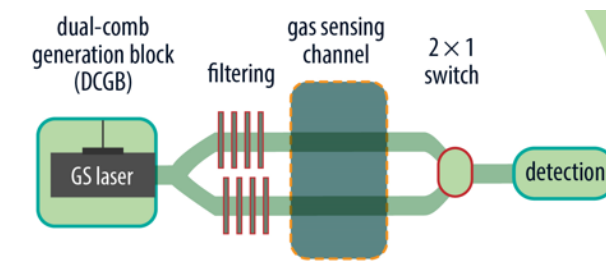
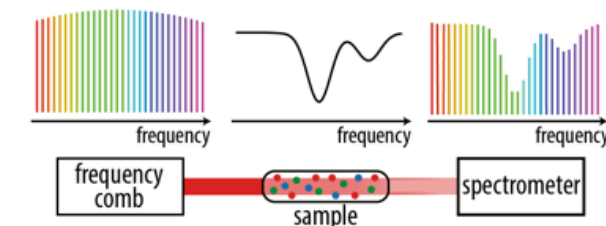
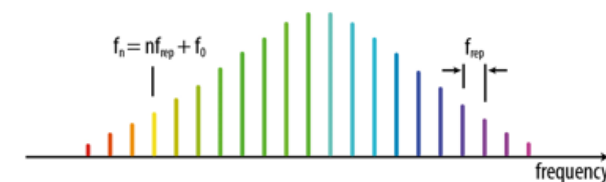


Фонд за науку
Републике Србије

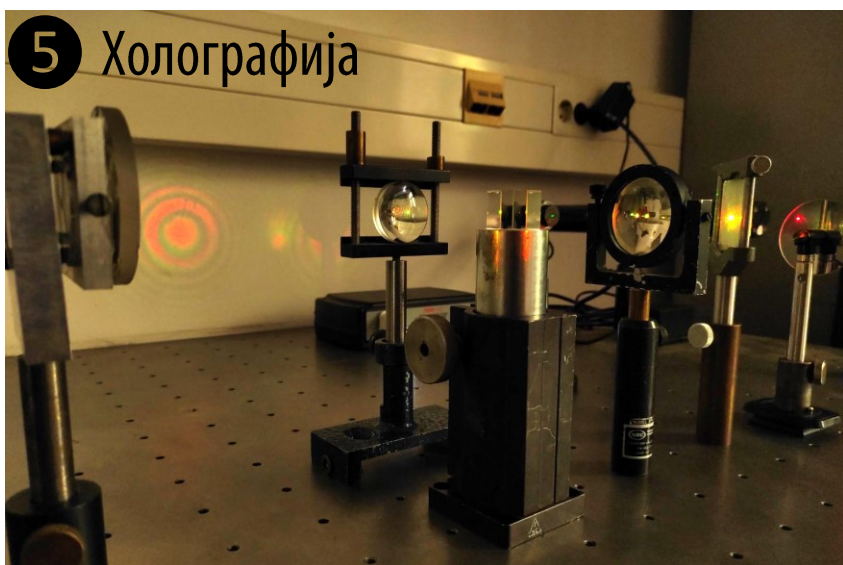
4 Ласери велике снаге



6 Интегрисани сензори

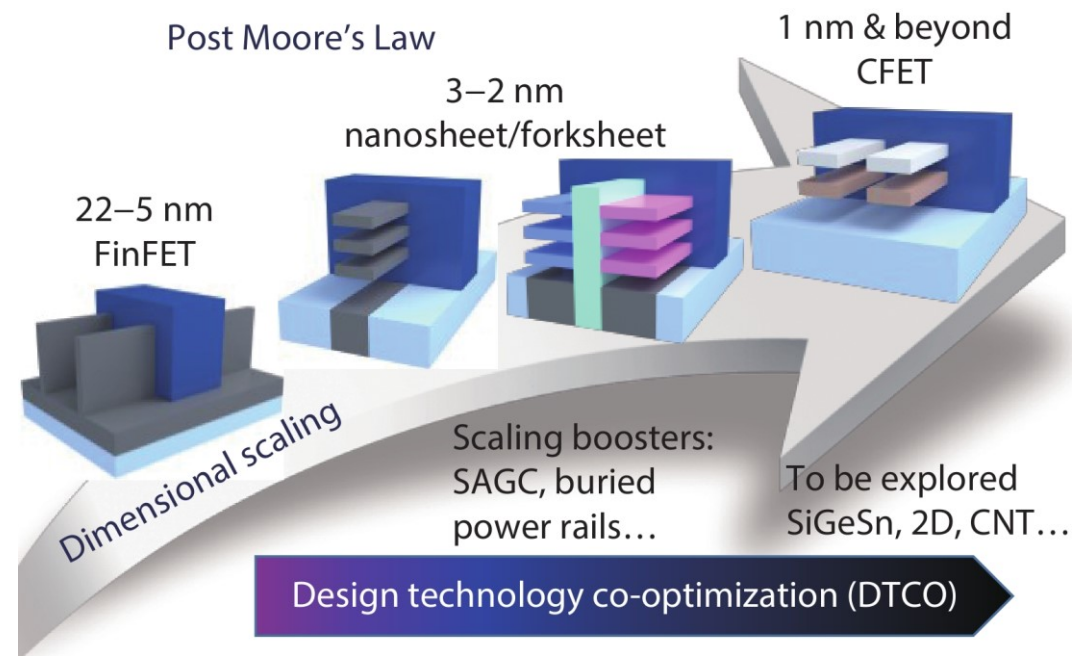
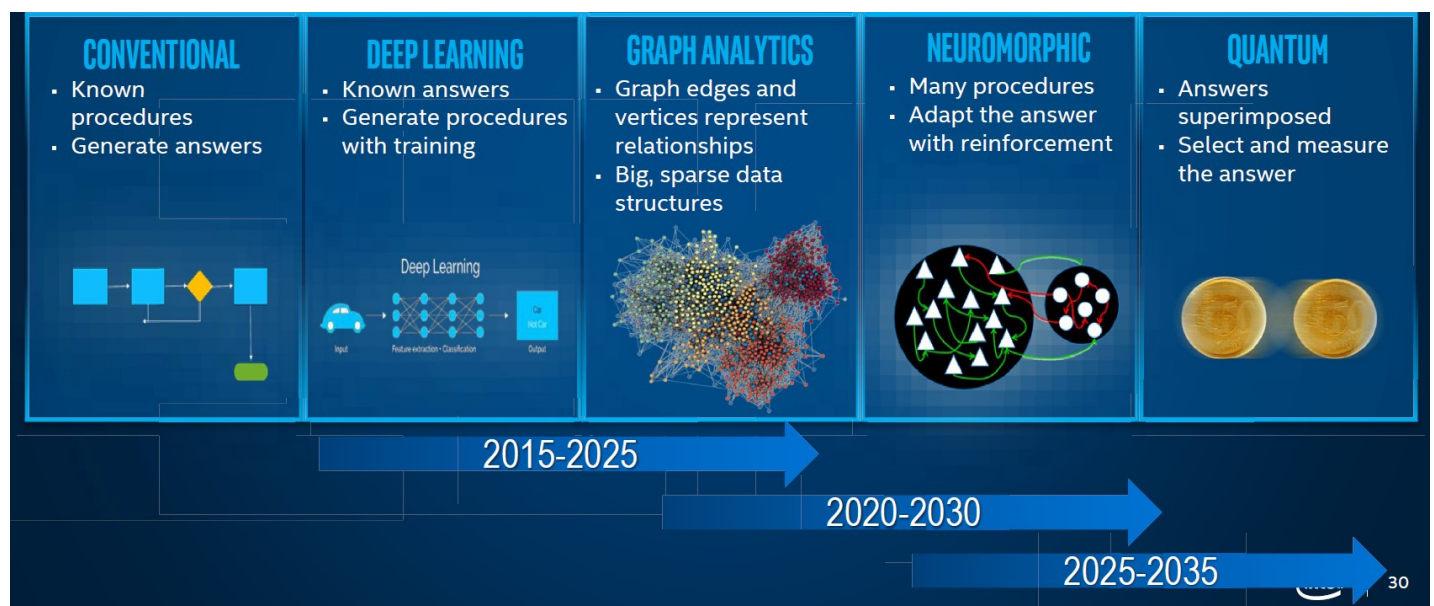


5 Холографија

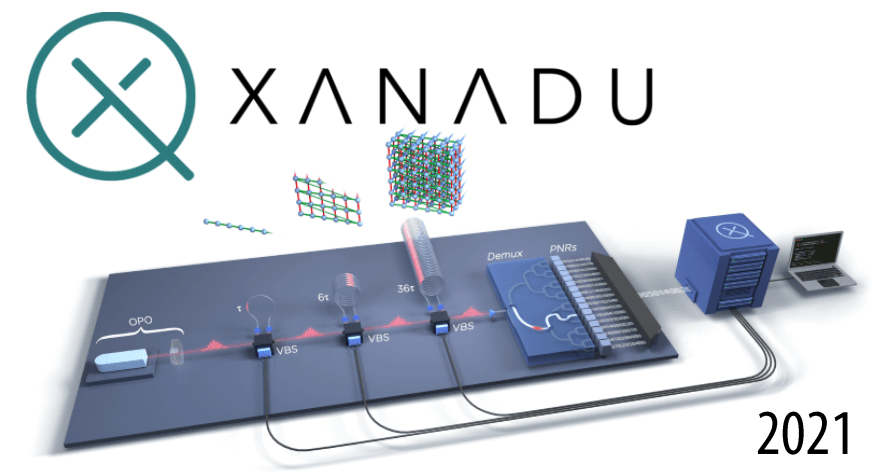
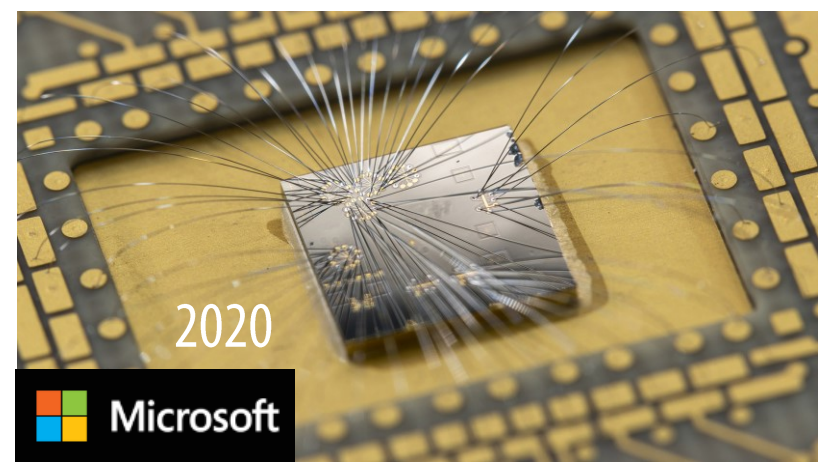


Наноелектроника и фотоника (НФ)

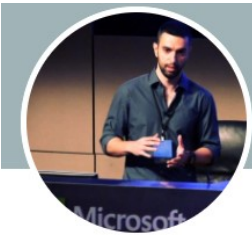
7 Наноелектроника: што мање, то боље?



8 Квантни свет: будућност је сада.



Где даље?



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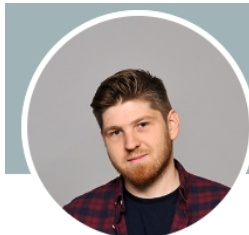
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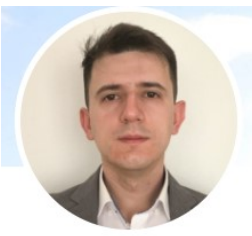
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Business Solution Line Head - Supporting Oil&Gas



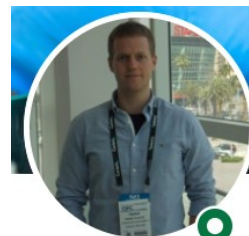
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