Reza Yadipour

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29Bahman Blv., Faculty of Electrical and Computer Engineering, University of Tabriz, Tabriz, Iran

CURRENT AFFILIATION

Professor, Electrical and Computer Engineering, University of Tabriz. August 2008-present

EDUCATION

Ph.D., Electrical Engineering, Nanophotonic, University of Tabriz, Iran June 2007
M.S., Electrical Engineering, Middle East Technical University (METU), Turkey June 1988
B.S., Electrical Engineering, Middle East Technical University (METU), Turkey June 1985

RESEARCH INTERESTS

- Quantum dot Lasers
- photodetectors
- terahertz wave devices
- Optic-MEMS
- Optical Communication
- Highly Efficient Hybrid Solar Cells
- Microcavities
- Optical Amplifier
- Optical Sensors

TEACHING COURSES

University of Tabriz August 2008-present

- Electronic I
- Logic Design
- Robotics
- Optical Communication
- Integrated Laser
- Electronic II
- Computer Architecture
- Optical Sensor Design
- Bio Sensors
- Advanced Optical Electronics

Developed and delivered presentations; stimulated inquiry-based group discussions which aired ideas to reach consensus on experimental design; supervised students doing experiments and writing up professional laboratory reports; arranged weekly meetings to evaluate the students' academic progress and help them prepare for exams, take and design exams and grading.

PROFESSIONAL ASSOCIATION

University of Tabriz, Electrical and Computer Engineering, Electronics department head 2010-2017
University of Tabriz, Electrical and Computer Engineering Faculty, Graduate Chair 2010-2017
IEEE Member 2010-present

ADVISED PHD STUDENTS

M.Sheki, *Analysis of Small Signal Characteristics of Reduced Dimension semiconductor Lasers*
N.Asadian ,*Coherent Coupling in QD lasers*
A.Marzabad, *Design and Analysis of Plasmonic Nanostructure applicable for heating and sensing cycles of Lab-On-Chip and Micro-PCR*

SM.Samadneshan, *Design and Modeling of Quantum dot Lasers with Multiple External Feedback*
M.Nami, *Investigation of Nonlinear Gain Effects on Quantum Cascade Laser characteristic*
S.rahimzadeh, Biosensor design for influenza virus sensing using micro ring resonator
S. Taleb, Modeling of Complex Signal Generation using Semiconductor Laser
Y.Shafiee, Design and Analysis of Plasmonic Modulators Based on Gain Assisted Nanostructures
M.Nami, Investigation of the Nonlinear Gain Effects on Quantum Cascade Laser Characteristic
S.Badami, Design and Analysis of phase modulation system using quantum Dot Lasers
A.Mohebati, Analysis of characteristics of injection locked quantum dot VCSEL

PROFESSIONAL WORK EXPERIENCE

Installation and training of university class laboratory equipment under ***UNDP*** program 1995-2002

With Cooperation of companies such as “Tandberg Norway”;” LabVolt Canada”; “Electronica Veneta Italy”; “Sodronic France” at Kazakhstan, Turkey, Kyrgyzstan, and Georgia.

||***UNDP*** works in about 170 countries and territories, helping to eradicate poverty, reduce inequalities and exclusion, and build resilience so countries can sustain progress. As the UN’s development agency, UNDP plays a critical role in helping countries achieve the Sustainable Development Goals. ||

PUBLICATIONS

1. Asadian, Neda, Mohammad Mohsen Sheikhey, Hamed Baghban, and Reza Yadipour. "Lasing Management Using Exceptional Points in Mutually-Coupled Quantum Dot Lasers." *IEEE JOURNAL OF QUANTUM ELECTRONICS* 58, no. 2 (2022): 2000307.N Asadian, MM Sheikhey, R Yadipour, H Baghban,”Coherent coupling of laterally coupled quantum dot lasers”,JOSA B 38 (10), 3048-3054
2. Asadian, Neda, Mohammad M. Sheikhey, Reza Yadipour, and Hamed Baghban. "Coherent coupling of laterally coupled quantum dot lasers." *JOSA B* 38, no. 10 (2021): 3048-3054.
3. Asgharian, Amir, Reza Yadipour, Gholam Reza Kiani, and Hamed Baghban. "Heat generation and light transmission in porous plasmonic nanostructures." *Journal of Nanophotonics* 14, no. 1 (2020): 016007.
4. Mohammadfam, Behzad, Hadi Veladi, Reza Yadipour, and Habib Khoshsima. "Tunable microlaser based on precisely formed dye-doped microsphere cavity." *Journal of Micro/Nanolithography, MEMS, and MOEMS* 18, no. 4 (2019): 045501.
5. Sheikhey, Mohammad M., Reza Yadipour, and Hamed Baghban. "Optically Injection-Locked Mid-IR Quantum-Cascade Lasers: The Output-Power–Modulation-Bandwidth–Noise Trilogy." *Annalen der Physik* 530, no. 7 (2018): 1800079.
6. Nurmohammadi, Tofiq, Karim Abbasian, and Reza Yadipour. "Numerical study of dumbbell-shaped gold nanoparticles using in plasmonic waveguides in near infra-red spectrums." *Optical and Quantum Electronics* 50, no. 4 (2018): 1-13.
7. Nurmohammadi, Tofiq, Karim Abbasian, and Reza Yadipour. "Ultra-fast all-optical plasmonic switching in near infra-red spectrum using a Kerr nonlinear ring resonator." *Optics Communications* 410 (2018): 142-147.
8. Ebadi, Nassibeh, Reza Yadipour, and Hamed Baghban. "Ultrahuge light intensity in the gap region of a bowtie nanoantenna coupled to a low-mode-volume photonic-crystal nanocavity." *Current Optics and Photonics* 2, no. 1 (2018): 85-89.
9. Nurmohammadi, Tofiq, Reza Yadipour, and Karim Abbasian. "Gold nano-elliptic arrays used in plasmonic waveguides in near infrared spectrum." *Optica Applicata* 48, no. 3 (2018).

10. Lotfian, Alireza, Reza Yadipour, and Hamed Baghban. "Broadrange tunable slow and fast light in quantum dot photonic crystal structure." *Chinese Physics B* 26, no. 12 (2017): 124207.
11. Ebadi, N., R. Yadipour, and H. Baghban. "High intensity gap light coupling of nano-antenna to high Purcell factor photonic crystal nano cavity." *Journal of Optoelectronics and Advanced Materials* 19, no. July-August 2017 (2017): 454-458.
12. Nurmohammadi, Tofiq, Karim Abbasian, and Reza Yadipour. "A proposal for a demultiplexer based on plasmonic metal–insulator–metal waveguide-coupled ring resonator operating in near-infrared spectrum." *Optik* 142 (2017): 550-556.
13. Pasyar, N., R. Yadipour, and H. Baghban. "Design of all-optical memory cell using EIT and lasing without inversion phenomena in optical micro ring resonators." *Optics Communications* 395 (2017): 241-248.
14. Yadipour, Reza, and Amir Asgharian. "HIGH RESOLUTION OPTICAL COHERENCE TOMOGRAPHY USING CHIRPED PULSE AND HIGHLY NONLINEAR OPTICAL FIBER." *TURKISH ONLINE JOURNAL OF DESIGN ART AND COMMUNICATION* 6 (2016): 2757-2764.
15. Sheikhey, M. M., M. Goudarzi, R. Yadipour, and H. Baghban. "Analytical investigation of relative intensity noise properties of injection-locked mid-IR quantum cascade lasers." *JOSA B* 33, no. 11 (2016): D57-D64.
16. Shafiei, S. Yousef, Reza Yadipour, Pouya Faeghi, and Ali Reza Marami Iranaq. "Evaluation of the Gain Competition and Pumping Mechanisms in Molecular Fluorine Laser."
17. Nurmohammadi, T., K. Abbasian, R. Yadipoor, and M. J. As' adi. "A novel proposal for OR/NOR logic gates based on dipole-induced transparency." *Optik* 127, no. 18 (2016): 7115-7120.
18. Sheikhey, M. M., M. Goudarzi, R. Yadipour, and H. Baghban. "Analytical investigation of relative intensity noise properties of injection-locked mid-IR quantum cascade lasers." *JOSA B* 33, no. 11 (2016): D57-D64.
19. Pasyar, N., R. Yadipour, and H. Baghban. "Design of all-optical memory cell using EIT and lasing without inversion phenomena in optical micro ring resonators." *Optics Communications* 395 (2017): 241-248.
20. Shafiei, Seyed Yousef, and Ali Reza Marami Iranaq. "Evaluation and Simulation of the Prevalence of Air Filling Fraction and Number of Ring Holes on Effective Index and Dispersion for Holy Fiber." *Journal of Innovation in Electronics and Communication Engineering* 5, no. 1 (2015): 6-9.
21. Alimohammadi, Farzin, Reza Yadipour, Karim Abbasian, and Hamed Baghban. "THz-assisted instantaneous gain switching in quantum dot semiconductor optical amplifiers." *IEEE Photonics Technology Letters* 27, no. 3 (2014): 288-291.
22. Ganjalizadeh, Vahid, Hadi Veladi, and Reza Yadipour. "A novel pressure sensor based on optofluidic micro-ring resonator." In *2014 International Conference on Optical MEMS and Nanophotonics*, pp. 133-134. IEEE, 2014.
23. Rostami, A., A. Lotfian, R. Yadipour, and H. Baghban. "Utilizing interband and intraband processes in QD-SOAs for controlling the light velocity." *Optik* 125, no. 3 (2014): 984-988.
24. Rostami, A., A. Lotfian, R. Yadipour, H. Baghban, and H. Rasooli. "Electrically Tunable Slow and Fast Light using Coherent Population Oscillations in Quantum Dot Semiconductor Optical Amplifier." *J. Opt. Commun.* 34, no. 1 (2013): 1-8.
25. Yadipour, Reza, Karim Abbasian, Bita Azemoodeh Afshar, and Ali Rostami. "Design of Dye-Sensitized Solar Cell by Inserting Single-Walled Carbon Nanotubes." In *Advanced Materials Research*, vol. 622, pp. 939-944. Trans Tech Publications Ltd, 2013.
26. Baghban, H., R. Oliaee, R. Yadipour, and A. Rostami. "Quantum dot semiconductor optical amplifiers: optical pumping versus electrical pumping." *Journal of Optics* 13, no. 3 (2011): 035406.
27. Rostami, Ali, Reza Oliaee Rezayee, Hassan Rasooli Saghai, Reza Yadipour, and Hamed Baghban. "A dual-color IR quantum cascade photodetector with two output electrical signals." *IEEE transactions on electron devices* 58, no. 1 (2010): 165-172.

28. Rostami, Ali, Reza Oliaee Rezayee, Hassan Rasooli Saghai, Reza Yadipour, and Hamed Baghban. "A dual-color IR quantum cascade photodetector with two output electrical signals." *IEEE transactions on electron devices* 58, no. 1 (2010): 165-172. Yadipour, Reza, Karim Abbasian, Ali Rostami, and Zia Koozekanani. "A novel proposal for ultra-high resolution and compact optical displacement sensor based on electromagnetically induced transparency in ring resonator." *Progress In Electromagnetics Research* 77 (2007): 149-170.
29. Taghizade Samira,Yadipour Reza,Golmohamadi Saeed,Nurmohammadi Tofig:slow light realization based on plasmon induced transparency in rectangular resonators structures."plasmonics 2023
30. Talebzadeh Seyyedeh Ladan,Yadipour reza,"Evaluation and analysis of optically injection locked semiconductor laser characteristics for optical comlex signal generation.''optics continuum vol 1 no.12/15 Dec 2022
31. Talebzadeh Seyyedeh Ladan,Yadipour Reza and Bagersalimi Gholamreza,'cascaded optically injection locked semiconductor laser,rate equations analysis frequency response,and its applications for complex optical signal generation.'optics express vol 31,no 20/25 sep 2023
32. Dortaj Hannaneh, Dolatyari mahboubeh,Zarghami Armin,Alidoust Farid, Rostami Ali,Matloub Samiye and Yadipour Reza,"High speed and high precision pbse/pbl2 solution process mid infrared camera,;scientific reports 2021
33. Eyvazi Mahdiyeh,Yadipour Reza and Rostami Ali,"all optical broadband QDs semiconductor optical amplifiers(QDs-SOA):inhomogeneous broadening,'IEEE access vol 12,2024
34. Vakili Elnaz,Karimian Ghader,Shoaran Maryam,Yadipour Reza and Sobhi Jafer,"valid-IOU:an improved IOU loss function and its application to detection of defect on printed circuit boards."multimedia tools and applications 13 gune 2024
35. Aglmandi Sadigh Bagheri Mahdi,Yadipour Reza and Asgharian Amir,"design and optimization of plasmonic metal nanoantennas on a glass substrate for efficient solar driven evaporation of seawater:an optical and numerical simulation approach."j nanopart res 2024 26:260
36. Asgharian Amir,Ydipour Reza,Kiani Golamreza and Baghban Hamed,"design and analysis of a plasmonic nanostructure applicable for heating and sensing cycles of lab on chip."sensor review 42/4 2022
37. Asgharian Amir,Yadipour Reza, Kiani Golamreza and Bagban Hmed,"proposing a numerical method to calculate the absorbed power of plasmonic nano particales(Au,Ag,Al and Cu) with different morphologies under solar irradiance."plasmonics 18 april 2022
38. Barati Mehdi,Baghban Hamed,Yadipour Reza,Alizadeh abdollah,"neuromorphic photonic image processing based on temporal coding with a spiking VCSEL-SA neuron.'journal of lightwave technology 2024
39. Asgarian Amir,Yadipour Reza,Kiani Gholamreza and Baghban Hamed,"design and analysis of a plasmonic nanostructure in the claddind region of a planar waveguide applicable for heating cycles of upcr,plasmonics 22 april 2022