
Frontier Concept of Rabi Chip for Intelligent Humanoid

P. Yupapin^{1,2}, I.S. Amiri³, J. Ali⁴, N. Ponsuwancharoen⁵, P. Youplao⁵

¹ Computational Optics Research Group, Advanced Institute of Materials Science, Ton Duc Thang University, District 7, Ho Chi Minh City, Vietnam;

² Faculty of Electrical & Electronics Engineering, Ton Duc Thang University, District 7, Ho Chi Minh City, Vietnam;

³ Division of Materials Science and Engineering, Boston University, Boston, MA 02215, USA;

⁴ Laser Center, Ibnu Sina ISIR, Universiti Teknologi Malaysia, 81310 Malaysia;

⁵ Department of Electrical Engineering, Faculty of Industry and Technology, Rajamangala University of Technology Isan, Sakon Nakhon Campus, 199 Phungkon, Sakon Nakhon 47160, Thailand.

ABSTRACT

The sequence of the human brain can be configured by the originated strongly coupling fields to a pair of the ionic substances(bio-cells) within the microtubules. From which the dipole oscillation begins and transports by the strong trapped force, which is known as a tweezer. The tweezers are the trapped polaritons, which are the electrical charges with information. They will be collected on the brain surface and transport via the liquid core guide wave, which is the mixture of blood content and water. The oscillation frequency is called the Rabi frequency, is formed by the two-level atom system. Our aim will manipulate the Rabi oscillation by an on-chip device, where the quantum outputs may help to form the realistic human brain function for humanoid robotic applications.

Keywords: Rabi oscillation; Strong coupling; Humanoid robot; Humanoid ethics

The human brain has the circumference that can be configured as the circular-like path, which can lead to having the Rabi oscillation when the strong field is circulated along the circumference and coupled to cells inside the brain. The cell information(electrical charges) will move to the brain surface for transmission, like the charge in the sphere will be collected on the surface. The higher potential from strong fields will move through the conductor and networks. But the light aspect just like polariton tweezers travel through the network. Other form of the signals can be configured as the antenna signal propagation. Cells can interact each other and communicate by oscillation dipole and link with the transmission then to the brain surface. In this proposal, the brain signals are in the form of the electromagnetic wave that can be eventually form the wave-packets(photons) in the nonlinear medium(brain content). It is the very short pulse that propagates with THz frequency, from which the intense energy can couple into the pair of the ionic dipole and the Rabi oscillation generates. This can be manipulated by inputting the intense light pulse into the Panda-ring resonator, in which the gap between the metallic grating can be used to form the dipole oscillation. The strong coupling of electromagnetic waves within an electric or magnetic dipole-carrying excitation generates the polaritons, are the quasiparticles. It is the expression of the level repulsion, which is the crossing of the dispersion of light with an interesting resonance. It results the high energy light pulses of the coupling channels generated by the two different cell systems, which can be obtained by the nonlinear effect of the two side rings coupled to the centre ring. It can present the strong coupling fields. The polariton is a bosonic quasiparticle, which is an electron plus an attached phonon cloud. A major feature of polaritons is a strong dependency of the propagation speed of light through the crystal on the frequency of the photon, which is the Rabi frequency. In human body is required the network that links between the brain and cell membrane signals, which involve the ion channels generated by the strong coupling between the photon and the excited ions(dipole-carrying excitation). The transmission of the polaritons with the specific Rabi oscillation can make the link between cell membrane-cell membrane and brain, where the cell communication can be performed. The applied

strong field is fed into the system and to a pair of the dipole, the quasi-particle called the polaritons are transmitted to the through port and network via the wave guide (liquid core waveguide). The liquid core waveguide is consisted of the blood content and water, while the dipole oscillation itself is the antenna propagation already. Polariton is a charge that moves with light means if no light it can also function by the electric current through the blood content-as a conductor. In the human body, the transmission can be functioned via the photon or conductor transmission line, which depends on the conditions the suitable transmission line, which is related to the refractive index (i.e. the speed of light in the medium). This is the dual mode transmission by polaritons in the liquid-core waveguide, in which the switching of the selected modes is the biological switching mechanism. Additionally, the strong interaction between the strong field and dipole-carrying excitation. By using the the high energy pulse (short laser pulse) goes through the gold grating. The output will be the Rabi oscillation frequency that can be the carrier signals generated in the brain (manipulation). Next, the transmission of the polaritons from one localised place to others and networks can be formed. The humanoid perception can be used the sensors that will be formed by the stereo sensors (2 and 3D). Moreover, the quantum picture of the two-level system may be used to form the orthogonal states of the signals, which can be configured as the paradox states of the human mind. This may lead to the link between the entangled states of the consciousness called the sub-consciousness, where the self-organised brain cells can be explained. The self-organized brain cells may be due to the strong coupling force between the polaritons are larger than the exciting force. This leads them to be confined and being super conducted which may be useful for the intelligent humanoid.

We have proposed that the Rabi chip may be engineered to form the ethic humanoid robot, in which the live bio ionic dipole can be formed to have the strong Rabi coupling and oscillation. From which the information can be transmitted via the liquid core medium and linked to the human network, where the brain can communicate with the body cells and functioned. The stereo sensors and networks are required to embed within the system, which can have the realistic perception for the humanoid. The humanoid information may need to have the filtering scheme that can make the decision time is longer and more reasonable. Additionally, the successive filtering process may be lead to have the more intelligent humanoid.

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