Signed details of the excellence in research work for which the Sun Pharma Research Award is claimed, including references and illustrations. The candidate should duly sign on the details

Cerebral palsy is the developmental disability in which physical and cognitive impairment is very common issue due to which the quality of life is also affected, and patient will depend on other. So, in my research work we have worked almost 7 years to develop non-pharmacological protocols with the help of biomedical instrument name as repetitive transcranial magnetic stimulation and develop therapy protocol for cognitive as well as for physical domain.

1. **M.Gupta**, D. Bhatia. Study the cognitive changes in cerebral palsy children employing repetitive transcranial magnetic stimulation and neurofeedback training. Proceedings of international conference on computing and communication, April 2021.springer
2. **M. Gupta,** D. Bhatia. Retrain the brain through noninvasive medically acclaimed instruments. Application pf biomedical engineering in neuroscience, 51-60, 2019
3. B. L. Rajak, M. Gupta, D. Bhatia, A. Mukherjee. Increasing number of therapy sessions of repetitive transcranial magnetic stimulation improves motor development by reducing muscle spasticity in cerebral palsy children. Annals of Indian academy of neurology, 22(3), 302-307, 2019 (1.383)
4. **M.Gupta** B. L. Rajak, D. Bhatia, A Mukherjee. Effect of repetitive transcranial magnetic stimulation on motor function and spasticity in spastic cerebral palsy. International journal of biomedical engineering and technology 31(4) 364,2019. (1.3)
5. **M.Gupta** B. L. Rajak, D. Bhatia, A Mukherjee. Neuromodulatory effect of repetitive transcranial magnetic stimulation pulses on functional motor performances of spastic cerebral palsy children. Journal of Medical Engineering and Technology 42(5):1-7, 2018 (1.03)
6. **M.Gupta** B. L. Rajak, D. Bhatia, A Mukherjee. Effect of repetitive transcranial magnetic stimulation on motor function and spasticity in spastic cerebral palsy. International journal of biomedical engineering and technology 31(4) 364,2019. (1.3)
7. **M.Gupta** B. L. Rajak, D. Bhatia, A Mukherjee. Neuromodulatory effect of repetitive transcranial magnetic stimulation pulses on functional motor performances of spastic cerebral palsy children. Journal of Medical Engineering and Technology 42(5):1-7, 2018 (1.03)
8. **M.Gupta**, D. Bhatia. Evaluating the effect of Repetitive Transcranial Magnetic Stimulation in Cerebral Palsy children by employing Electroencephalogram Signals. Annals of Indian academy of Neurology, 21(4) 280-284, 2018 (1.383)

