

Disha Gupta, Ph.D.

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Research Scientist,
National Center for Adaptive Neurotechnologies,
US Dept. Veterans Affairs,
Stratton VA Medical Center, Albany, NY, USA

EDUCATION	DEGREE	DATES	FIELD OF STUDY
Punjab Engineering College, Punjab University, India	B.E. (<i>1st Div., Honors, Silver Medalist</i>)	1998-02	Electrical Engineering
Royal Institute of Technology, Stockholm, Sweden	M.Sc. <i>Scholar</i>	2003-05	Information Technology
University of Southampton, Hampshire, UK	Ph.D. <i>Scholar</i>	2005-09	Biomedical Engineering

WORK EXPERIENCE	POSITION	DATES	DOMAIN
Tata consultancy Services, India	Asst. Systems Engineer	2002-03	Software Development
Donders Institute for Brain, Cognition and Behavior, Radboud University, Netherlands / Kempenhaeghe Epilepsy Centrum	Postdoctoral Fellow	2009-10	Computational Neuroscience
Albany Medical College, NY	Postdoctoral Fellow	2010-13	Brain-Computer Interface
Wadsworth Research Laboratories, NY State Dept. of Health, NY, (National Center for Adaptive Neurotechnologies)	Visiting Scientist	2010-13	Neuroscience
Burke-Cornell Medical Research Institute, NY	Postdoctoral Fellow	2013-14	Neuromodulation
Burke Medical Research Institute, NY An affiliate of Weill Cornell Medicine, Medical College, NY	Goldsmith Fellow, Instructor	2014-18	Neuromodulation Neurophysiology
Brain Mind Research Inst., Weill Cornell Medicine, Medical College, NY	Instructor	2016-18	Neuromodulation Neurophysiology
Helen Hayes Rehabilitation Hospital, NY	Visiting Scientist	2016-18	Neurophysiology & BCI
Computational Science & Engineering, Cornell Univ., NY	Graduate Faculty (minor)	2017-18	Neuroengineering
Comprehensive Epilepsy Ctr, New York University Langone Health Dept. of Neurology, New York School of Medicine	Research Scientist	2018-20	ECoG Neuroscience
National Center for Adaptive Neurotechnologies, US Dept. of Veterans Affairs, Albany, NY	Research Scientist	2020-	BCI Neuroengineering

FELLOWSHIPS / RESEARCH FUNDING	TYPE	DATES	GRANT SUPPORT
Horace W. Goldsmith, PI	Fellowship	2014-17	\$150,000
Weill Cornell Clinical & Translational Science Center Co-PI with Prof. Catherine. Lord (NY-Presbyterian Hospital, Weill Cornell)	Pilot Award	2014-16	\$100,000
Eisenberg-Ahsen Foundation, PI	Research Grant	2014-18	\$163,000
Medtronics PLC, Co-Investigator	Research Grant	2016-18	\$50,000

HONORS

Awards

- 1994 Silver Medalist (Mathematics, Science), Junior National Level Talent Search Contest, India
- 1996 Silver Medalist (Mathematics, Science), Senior National Level Talent Search Contest, India
- 1998 National Merit Certificate for national 1% topper, National Scholarship Scheme, India
- 2002 B.E., Electrical Engineering (*Honors*), Punjab Engineering College, Punjab University, India
- 2002 Silver medalist, BE Graduation project, artificial intelligence based medical diagnosis
- 2002 National Service Scheme, Excellence Award for community service, Punjab Engineering College
- 2006 William James Memorial Biomedical Engineering, best research paper award, Intl. MEDSIP, UK
- 2007 Graduate Student Award, student paper competition, IEEE EMBS, UK
- 2017 Marquis Who's Who in the World, listed among top 5% professionals in the world,
- 2018 Albert Nelson Marquis Lifetime Achievement Award

Scholarships

- 2004-05 Masters Research Scholarship, Fraunhofer Institute for Integrated Solutions, Germany
- 2005-09 PhD scholarship and Tuition: Life Sciences Interface, UK and University of Southampton, UK
- 2006 Graduate student travel grant: EPSRC Research Network on BSS ICA, UK
- 2007 Graduate student travel grant: EPSRC ICA Research Network, UK
- 2008 Travel grant: Fraunhofer Institute of Integrated Solutions, Germany
- 2013 Scholar travel grant: International Meeting, Brain Computer Interfacing, CA, USA
- 2018 Educational grant CP Alliance Research Foundation

PROFESSIONAL SOCIETIES

- 2001-02 Student job-placement committee, academia-industry liaison at Punjab Engineering College
- 2000-02 College editorial board, co-editor and illustrator at Punjab Engineering College
- 2001-02 Rotaract Student Chapter, vice-president, Punjab Engineering College
- 2000-02 National Service Scheme, coordinator, Punjab Engineering College Chapter
- 2008-09 International League Against Epilepsy, member UK Chapter
- 2006-15 Institute of Electrical and Electronics Engineers (IEEE) member
- 2006-15 Engineering Medicine and Biology Society (EMBS) member
- 2011-15 Sigma-Xi, The Scientific Research Society member
- 2011-17 Society of Neuroscience member
- 2012-14 American Epilepsy Society member
- 2013-17 New York Academy of Sciences Member
- 2015-16 International Society for Autism Research member
- 2016-17 Brain Computer Interfacing Society, Founding member

TEACHING AND MENTORING EXPERIENCE

Punjab Engineering College, Punjab University, India

- Guest Lecture, Artificial neural networks and fuzzy logic, Electrical Engineering

University of Southampton, UK

- Graduate Teaching Assistant, Engineering Foundation Year, Univ. of Southampton, UK
Courses covered: Electronics and Electrical Engineering, FESM, 2005-08
Engineering Principles, FESM 2005-08

- Lab instructor: Engineering Foundation Year, Univ. of Southampton, UK
Courses covered: Electronics and Electrical Engineering, FESM, 2005-08
Engineering Principles, FESM 2005-08
- Tutor (personal): Mathematics, Mechanics, Engineering Principles, Electronics and Electrical Engg.
- Staff-Student Liaison: Engineering Foundation Year, Southampton Univ. (2006-08)

Radboud University and Epilepsy Center, Netherlands

- Faculty Lecture: *Dynamic imaging of generalized seizure activity*, Intl. Clinical Symposium, (2010)

Wadsworth Research Labs, NY State Dept. of Health/ Albany Medical College, USA

- Master's research supervision, ECoG Signal Analysis and MATLAB processing (2011-12)
- Faculty lecture: *Auditory Processing and Anticipation with human ECoG*, Intl. Workshop on Advances in Electrocoricography, SfN, Washington DC (2011)

Burke Medical Research Institute/ Weill Cornell Medical College, New York, USA

- Postdoctoral research supervision: Dr. Barachant, Early Brain Injury and Recovery Program
 - Research: BCI research and advanced signal processing (2014-16)
- Postdoctoral research supervision: Dr. Quereshi, multi-disciplinary
 - Skill development: EEG paradigm design and experimentation (2015-16)
- Supervised 2 summer interns, Early Brain Injury and Recovery Program
 - Skill development: EEG experimentation and data acquisition (2014-16)
- Co-supervising PhD student with Prof. Gary Evans, Human Development Lab, Cornell University,
 - Research: BCI based dynamic emotion self-regulation (2016-)
- Co-supervising PhD student with Prof. Vance Zemon, Ferkauf University, NY,
 - Research: EEG based passive assessment of visual perception and attention (2016-)
- Faculty (minor), Computational Science and Engineering, Graduate School, Cornell University (2016-)
- Faculty lecture: *BCI2000 Application*, BCI2000 Workshop, Intl. Brain Computer Interfacing, USA (2016)
- Faculty lecture: *Neurostimulation*, National Center for Adaptive Neurotechnologies, USA (2016, 2017)
- Faculty lecture: *Brain reorganization and BCI in CP*, Summit on CP neurotechnologies, USA (2018)
- Faculty lecture: *Objective extraction of EEG features to predict recovery and determine awareness/ unawareness after brain injury*, USA (2018)

SCIENTIFIC ENGAGEMENT

- 2001 Research Internship: Terminal Ballistic Research Lab-Defense and Research Organization, India
- 2006 Scientific Research Presentation at the Houses of Parliament, London, UK, SET for Britain
- 2008- Invited reviewer (>120 reviews submitted):
Journal of Neural Engineering, PNAS, Neuroimage, PLoS One, Neuroscience Letters, IEEE Transactions Biomedical Engineering, Human Brain Mapping, IEEE Engineering in Medicine and Biology Society, Frontiers Neurology, Biomedical Signal Processing and Control Computers in Biology Medicine, Behavioral Sciences, Neurotherapeutics, Brain Computer Interfacing
- 2014 Guest Associate Editor: Frontiers in Neuroengineering
- 2016- Review Editor, Ed. Board of Journal of Neuroprosthetics, Frontiers in Neurology, and Neuroscience.
- 2016- Guest Associate Editor: Frontiers Neuroscience: Neural Technology
- 2017,18 Grant reviewer, National Center of Neuromodulation for Rehabilitation, South Carolina University

COMMUNITY ENGAGEMENT

Organized and lectured at cross-disciplinary workshops involving industry, clinicians, care-givers, therapists, scientists, research students, game developers, programmers and federal (NIH) funding representatives.

- 2013 Autism-outreach: A conversation for scientists and caregivers in autism, NY State Dept. of Health
- 2013 BCI for neurodevelopmental disorders, at the Intl. BCI meeting, CA, USA
- 2016 Brain Computer Research and development for children, at Intl. BCI meeting, CA, USA
- 2016 Novel Applications of Auditory Brain Computer Interfaces, Intl. BCI Meeting, CA, USA
- 2016 Neurophysiology, Neuroimaging and BCI in Autism: Progress and Pitfalls, Intl. BCI Meeting, USA
- 2021 The design of effective BCI's for Children, International BCI meeting, Brussels, Belgium (Virtual)

PUBLICATIONS

1. Hao Y, Yao L, Sun Q, **Gupta D**, Interaction of self-regulation and contextual effects on pre-attentive auditory processing: a combined EEG/ECG study, *Frontiers of Neuroscience*, 13:638, 2019.
2. Wen T, Sindhurakar A, Ramirez V, Park HG, **Gupta D**, Carmel J, Targeted infarction of the internal capsule in the rat using microstimulation guidance, *Stroke*, 50(9): 2531-38, 2019.
3. Giridharan SR, **Gupta D**, Pal A, Mishra A, Hill NJ, Carmel J, Motometrics: A toolbox for annotation and efficient analysis of motor evoked potentials, *Frontiers of Neuroinformatics*, 2019.
4. Wen TC, Lall S, Pagnotta C, Markward J, **Gupta D**, Ratnadurai-Giridharan S, Bucci J, Greenwald L, Klugman M, Hill NJ, Carmel J, Plasticity in One Hemisphere, Control from Two: Adaptation in Descending Motor Pathways after Unilateral Corticospinal Injury in Neonatal Rats, *Frontiers in Neural Circuits*, 12-28, 2018.
5. **Gupta D***, Barachant A*, Gordon AM, Ferre C, Kuo H-S, Carmel JB#, Friel K#. Effect of sensory and motor connectivity on hand function in pediatric hemiplegia, *Annals of Neurology*, 82(5), 766-80, 2017.
6. Marneweck M, Kuo H-C, Smorenburg ARP, Ferre C, Flamand VH, **Gupta D**, Carmel JB, Bleyenheuft Y, Gordon AM, Friel K. The relationship between hand function and overlapping motor representations of the hands in the contralesional hemisphere in unilateral spastic cerebral palsy, *Neurorehabilitation and Repair*, 32(1): 62-72, 2018.
7. Mishra A, Pal A, **Gupta D**, Carmel JB. Paired motor cortex and cervical epidural electrical stimulation timed to converge in the spinal cord promotes lasting increases in motor responses. *The Journal of Physiology*, 595(22):6953-68, 2017.
8. Sindhurakar A, Mishra AM, **Gupta D**, Iaci JF, Parry TJ, Carmel JB. Clinically Relevant Levels of 4-Aminopyridine Strengthen Physiological Responses in Intact Motor Circuits in Rats, Especially After Pyramidal Tract Injury. *Neurorehabil Neural Repair*. 31(4): 387-396, 2017.
9. Huggins J, Guger C, Ziat M, et al., Workshops of the Sixth Intl. Brain-Computer Interface Meeting: brain-computer interfaces past, present, and future. *Brain Computer Interfaces*, 4(1-2): 3-36, 2017.
10. Friel KM, Lee P, **Gupta D**, Kuo HC, Smorenburg ARP, Edwards DJ. Combined Transcranial Direct Current Stimulation and Upper Extremity Robotic Therapy Improves Upper Extremity Function in an Adult with Cerebral Palsy: A Pilot Study. *Brain Stimulation: Basic Translational and Clinical Res in Neuromodulation*;10(1)e13. 2017.
11. **Gupta D**, Hill NJ, Brunner P, Gunduz A, Ritaccio A, Schalk G, Simultaneous Real-Time Monitoring of Multiple Cortical Systems. *Journal of Neural Engineering*, 31:11(5):056001, 2014.
12. **Gupta D**, Hill NJ, Adamo M, Ritaccio A, Schalk G, A method to co-register interoperatively placed ECoG grids with the cortical anatomy, *NeuroImage: Clinical*, (6): 64-76, 2014.
13. Vuckovic A, Pineda J, Guger C, LaMarca K, **Gupta D**. Interaction of BCI with the underlying neurological conditions in patients: pros and cons. *Frontiers in Neuroengineering*, Res. Topic, 2014.
14. Miller V, **Gupta D**, Neu N, Cotroneo A, Boulay CB, Seegal RF, Novel inter-hemispheric white matter connectivity in the BTBR mouse model of autism, *Brain Research*, 1513: 26-33, 2013.
15. Huggins JE, Guger C, Allison B, Anderson CW, Batista A, Brouwer A-M, Brunner C, Chavarriaga R, Fried-Oken M, Gündüz A, **Gupta D**, et al., Workshops of the Fifth International Brain-Computer Interface Meeting: Defining the Future. *Brain Computer Interfaces*, 1(1): 27-49, 2014.
16. Hill NJ, **Gupta D**, Brunner P, Gunduz A, Adamo MA, Ritaccio A, Schalk G, Using human electrocorticographic (ECoG) signals for neuroscientific research and real-time neural-engineering applications, *Journal of Vis. Experiments*, 2012.
17. Ritaccio A, Beauchamp M, Bosman C, Brunner P, Chang E, Crone N, Gunduz A, **Gupta D**, Knight R, Leuthardt E, Litt B, Moran D, Ojemann J, Parvizi J, Ramsey N, Rieger J, Viventi J, Voytek B, Williams J, Schalk G, Proceedings of the Third International Workshop on Advances in Electrocorticography, *Epilepsy & Behavior*. 25 (4), 605-613, 2012.
18. **Gupta D**, Ossenkloek P, van Luijckelaar G. Space-time network connectivity and cortical activations preceding MEG Spike Wave Discharges in human absence epilepsy, *Medical and Biological Engineering and Computing*, 49(5): 555-65, 2011.
19. James CJ, **Gupta D**, Seizure prediction for epilepsy using a multi-stage phase synchrony based system, *IEEE Eng. in Medicine and Biology Society*, USA, 2009.
20. **Gupta D**, Advances in Epileptic Seizure Onset Prediction in the EEG with Independent Component Analysis and Phase Synchronization, PhD Thesis, University of Southampton, UK, 2009.

21. **Gupta D**, Moersdorf HJ and Kleijn B, Encryption and Compression of ECG Signals on Embedded Systems, Master Thesis, Royal Institute of Technology-KTH (Sweden) and Fraunhofer Institute for Integrated Circuits-IIS (Germany), 2005.

Peer Reviewed Full Length Conference Papers

1. **Gupta D**, James CJ, Gray WP, Phase Synchronization with ICA for Epileptic Seizure Onset Prediction in the Long Term EEG, IET Intl. Conf. on Advances in Medical and Signal Processing, Italy, 2008.
2. **Gupta D**, James CJ, Narrowband vs. Broadband Phase Synchronization Analysis Applied to Independent Components of Ictal and Interictal EEG, IEEE, Engg. in Med & Biology Soc, France, 2007.
3. James CJ, Abasolo D, **Gupta D**, Space-Time ICA versus Ensemble ICA for Ictal EEG Analysis with Component Differentiation Via Lempel-Ziv Complexity, IEEE Annual Intl. Conf. of Engineering in Medicine and Biology Society, Lyon, France, 2007.
4. **Gupta D**, James CJ, Gray WP. De-noising Epileptic EEG using ICA and Phase synchrony, Intl. Conf. on Advances in Medical Signal and Information Processing, 2006.
5. Pal M, Edwards MG, **Gupta D** and James CJ, Flux-continuous schemes for solving EEG source localization problem, ACME07, Scotland-UK, 2007.

Abstracts and Posters

1. **Gupta D**, Barachant A, Gordon AM, Kuo H-C, Carmel JB, Friel KM, Sensory connectivity predict hand function in children with unilateral cerebral palsy, Research Day, NY Presbyterian Hospital/ Weill Cornell Medical College, NY, USA, 2018.
2. Hao Y, Yao L, **Gupta D**, Sorel E, Gelsinger M, Matteson DS, Evans GW, Dynamic emotion transition detection for affective BCI, BCI International Meeting, CA, USA, 2018.
3. Ratnadurai-Giridharan S, **Gupta D**, Hill, NJ, Pal, A, Mishra A, Carmel JB. Motometrics: A toolbox for analyzing motor evoked potentials and recruitment curves. Society of Neuroscience, USA 2017.
4. **Gupta D**, Barachant A, Gordon AM, Kuo H-C, Carmel JB, Friel KM, Sensory connectivity and lesion type predict hand function in children with unilateral cerebral palsy, Society of Neuroscience, USA 2016
5. Barachant A, Carmel JB, Friel KM, Gordon AM, **Gupta D**, Extraction of motor spatial patterns in children with movement disorders via joint decomposition of brain & muscle activity, Society of Neuroscience, USA, 2016.
6. **Gupta D**, Hill NJ, Seliger G, Fiorenza G, Zeitlin D, Zoltan B, Tenteromano L, Wolpaw JR, Vaughan TM, An Automated Method for Determining Awareness and Predicting Recovery after Brain Injury, Using Event-Related Potentials International Brain Computer Interfacing Meeting, USA, 2016.
7. Barachant A, Carmel JB, Friel KM, **Gupta D**, Extraction of motor patterns from joint EEG/EMG recording: A Riemannian Geometry approach, International Brain Computer Interfacing Meeting, USA, 2016.
8. Mishra A, **Gupta D**, Pal A, Carmel JB, Paired brain and spinal cord stimulation to strengthen corticospinal responses, American Society of Neurorehabilitation, Annual Meeting, USA, 2015.
9. Friel KM, Lee P, **Gupta D**, Smorenburg ARP, Kuo H-C, Edwards DJ, Combined transcranial direct current stimulation and upper extremity robotic therapy improves upper extremity function in an adult with cerebral palsy: a pilot study. Neuromodulation Conference, USA, 2015.
10. Mishra A, Pal A, **Gupta D**, Carmel JB, Paired brain and spinal cord stimulation to strengthen corticospinal responses, North American Neuromodulation Society Meeting, USA, 2015
11. **Gupta D**, Carmel JB, Comparing anatomy and physiology of the corticospinal tract across subjects: Microstimulation motor mapping and retrograde tracing of motor cortex neurons co-registered in 3-dimensional space, Society of Neuroscience, USA, 2014.
12. Mishra AM, **Gupta D**, Carmel JB, Paired motor cortex and cervical spinal cord stimulation augments corticospinal motor responses and promotes learning in the spinal cord of rats. SfN, USA, 2014.
13. Friel KM, Lee P, **Gupta D**, Smorenburg ARP, Kuo H-C, Edwards DJ, Transcranial direct current stimulation and upper extremity robotic therapy improves upper extremity function in an adult with cerebral palsy: a pilot study. Society of Neuroscience, Washington DC, USA, 2014.
14. Wen T, **Gupta D**, Carmel JB, Separate representations of the unimpaired and the impaired forelimbs in primary motor cortex following neonatal pyramidotomy in rats. Society of Neuroscience, USA, 2014.
15. **Gupta D**, Seliger G, Fiorenza G, Zeitlin D, Zoltan B, Tenteromano L, Vaughan TM, Wolpaw J, Using a Brain-Computer Interface to Assess Awareness after Brain Injury. Intl. BCI Meeting, USA, 2013.
16. **Gupta D**, Seliger G, Fiorenza G, Zeitlin D, Zoltan B, Tenteromano L, Vaughan TM, Assessing awareness after traumatic brain injury (TBI) using spatially-constrained independent component analysis (SciCA).

Society of Neuroscience, USA, 2013

17. **Gupta D**, Adamo MA, Ritaccio A, Schalk G, A Method to Co-register Interoperatively Placed ECoG Grids with the Cortical Anatomy. American Epilepsy Society, Annual Meeting, USA, 2013.
18. AL Ritaccio, P Brunner, A Gunduz, M Adamo, **Gupta D**, G Schalk, Three-dimensional real-time electrophysiological functional mapping of eloquent cortex. American Epilepsy Society, USA, 2012.
19. **Gupta D**, Hill J, Ritaccio A, Schalk G, Electrocorticographic (ECoG) Signals in Humans Are Predictive of Features of Anticipated Complex Acoustic Stimuli. Society of Neuroscience, USA, 2011.
20. Schalk G, Hill J, Brunner P, Gunduz A, **Gupta D**, Towards simultaneous real-time decoding of multiple brain systems using electrocorticographic (ECoG) signals in humans. SfN, USA, 2011.
21. **Gupta D**, James CJ, Gray WP, Seizure Onset Prediction through EEG using ICA and Phase Synchrony. International League Against Epilepsy, Newcastle upon-Tyne, UK, 2006.
22. **Gupta D**, CJ James and W Gray, Seizure onset prediction in epilepsy through EEG using ICA. SET for Britain, Early-Stage Research Engineers at the UK Parliament, House of Commons, London, UK, 2006.
23. **Gupta D**, James CJ, Gray WP, Seizure Onset Prediction in Epilepsy. Life Sciences Interface Conference, Southampton, UK, 2005.

Invited Talks

1. The design of effective BCIs for children, Workshop at International BCI Meeting, Belgium, 2021.
2. Comic Strips: An approach to study schemas: Retrieval, predictive mechanisms and episodic memory, IEEG meeting, NYU, 2019.
3. Adaptive neurotechnologies, Summer course, National Center for Adaptive Neurotechnologies, Wadsworth Center, NYS Department of Health, Albany, NY, July, 2019.
4. Effect of sensory and motor connectivity on hand function in early brain injury, NCAN, Wadsworth, Albany, June, 2019.
5. Using EEG for objectively determining the degree of awareness in minimally responsive patients, Weill Cornell Medical College, 2019.
6. The Responsive Neuro Stimulator overview, NYU, Clinical meeting, 2018.
7. Objective extraction of EEG features to predict recovery and determine awareness/unawareness after brain injury, Research Day- NY Presbyterian- Weill Cornell Medical College, 2018.
8. Federal Interagency Conference on Traumatic Brain Injury, Washington DC, 2018: Objective Extraction of EEG Features to Predict Recovery and Determine Awareness/Unawareness After Brain Injury.
9. CPARF International Summit on Neurotechnology in CP, 2018.
10. Abnormal sensory processing in Autism- a weakness or strength? Burke SNAP, 2017.
11. The effects of disparity in sensory-motor reorganization in hemiplegic Cerebral Palsy, Burke, 2017
12. Stimulating outside the brain: Summer Course, the National Center for Adaptive Neurotechnologies, Wadsworth Center, NYS Department of Health, NY, 2017.
13. Effects of sensory motor connectivity in children with unilateral cerebral palsy, Mechanical Engg. Dept., Columbia University, Aug 2016.
14. Adaptive neurotechnologies, Summer course, National Center for Adaptive Neurotechnologies, Wadsworth Center, NYS Department of Health, Albany, NY, 2016.
15. Novel application of auditory brain computer interfaces, Intl. BCI Meeting, CA 2016.
16. BCI research and development for children, Intl. BCI Meeting, CA 2016.
17. Neurophysiology, neuroimaging and brain computer interfaces for autism: Progress and Pitfalls, Sixth International Brain Computer Interfaces Meeting, Monterey, CA, 2016.
18. Brain Computer Interfacing for rehabilitation in neurodevelopmental disorders, Bioelectronic Medicine, Feinstein Institute for Medical Research, NY, May 2016.
19. Determining awareness and predicting recovery after brain injury, Burke SNAP, 2016.
20. Auditory perception and auditory attention, Burke SNAP Meeting, NY, 2016.
21. Assessing the effects of tDCS with TMS MEP, Clin Lab for Early Brain Injury & Recovery, Burke, 2016.
22. Transcranial direct current stimulation for therapy in hemiplegia, Burke Retreat, 2015.
23. Monitoring, therapy assessment and training with Electroencephalography, Burke Forum, NY, 2014.
24. The brain in 3D, Early Brain Injury and Recovery Lab Meeting, NY, 2014.
25. Realtime monitoring of multiple cortical systems in humans using Electrocoigraphy, Burke Clinical Lab Meeting, NY, 2013.
26. Advanced digital signal processing for clinical neurophysiology, Burke Clinical Res Meeting, NY, 2013.

27. Brain Computer Interfaces for neurodevelopmental disorders, Intl. BCI Meeting, CA 2013.
28. Current trends in research and development of brain-computer interfaces, Fortis Hospital, Chandigarh, India, 8th Jan 2013.
29. Novel research method for intra-operative ECoG grid localization, Wadsworth, NY, 2013.
30. Brain-computer Interfaces. Triggers and treatments for autism, at the David Axelrod Institute, Albany, NY, supported by the School of Public Health (Wadsworth Center/SUNY Albany) and the Autism Research Institute, 12th September 2012.
31. ECoG: A step closer to the brain, Brain Computer Interfacing workshop, Univ. Old dominion, VA 2012.
32. Auditory processing and anticipation with human ECoG, 3rd International Workshop on Advances in Electroencephalography, Society of Neuroscience satellite workshop, Washington DC, USA, Nov. 2011.
33. Seizure prediction with advanced signal processing, Wadsworth, NY State Dept. of Health, NY, 2010.
34. Dynamic imaging of generalized seizure activity, Sleep and Epilepsy Update: 12th Annual International Clinical Symposium Kempenhaeghe, Netherlands, March 2010.
35. Seizure prediction with independent component analysis, Philips Research BV, Netherlands, 2005.

Disha Gupta
2020