

MANISH KUMAR ASTHANA (Ph.D.)1st – July – 2019Institutional address:

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CURRENT POSITION

- **Assistant Professor** in the Department of Humanities and Social Sciences, Indian Institute of Technology Roorkee, Uttarakhand, India - 247667 (July, 2019 – now)

TEACHING EXPERIENCE

1. **Associate Professor** in the Department of Psychology, Southwest University, Chongqing, China-400075 (**November, 2018 – June, 2019**). Teaching Graduates (Course Teaching: **Cognitive Research Method**) & Undergraduates (Course Teaching: **Cognitive Ergonomics**)
2. **Assistant Professor** in the Department of Basic Sciences and Humanities, BV Raju Institute of Technology, Telangana (**April, 2017- Oct, 2018**) **Taught Course: Principles of Cognitive Science (A27AE)**
3. Supervised & Mentored Bachelor's students of BV Raju Institute of Technology (**2017-2018**)
4. **Research Scientist** Vishnu Educational Development and Innovation Center (**April 2017 – Oct, 2018**)
5. Workshop Trainer: Designed "**Faculty Development Program**" on Emotional Intelligence, Classroom Management, Faculty Mentoring, and Conflict Management. So far trained 300+ faculties of Sri Vishnu Educational Society (SVES)
6. Supervised Bachelor's & Master's students of **Mackenzie Presbyterian University** how to record and analyze physiological measures such as heart-rate variability, skin conductance responses, etc. (**April, 2014- Feb, 2016**)

ONGOING RESEARCH PROJECTS (2016-present)

1. Effects of contextual word-picture pairing on psychophysiological response (**IITK/IEC/2016-17/16**)
2. A psychophysiological study to investigate the ethnic differences in the perception of emotional stimuli (**IITK/IEC/2017-18/15**)

EDUCATION

1. **Post-doctoral Fellow** in the Humanities and Social Science (HSS), Indian Institute of Technology-Kanpur (IIT-k). Topic: *Pathological learning and memory using Neurofeedback system*. (2016 – 2017).
2. **Post-doctoral Fellow** in the Social and Cognitive Neuroscience Laboratory, Mackenzie Presbyterian University. Topic: *Alteration of fear learning and fear extinction using transcranial direct current stimulation (tDCS)* (2014 – 2016).
3. **Philosophy of Doctor (Magna-cum Lauda)**. Department of Psychiatry, Psychosomatics and Psychotherapy, University of Würzburg. Germany. "*Associative learning, consolidation, reconsolidation and its modulation via transcranial direct*

- current stimulation and genetic polymorphism*” (2010-2013). Supervisor: PD. Dr. M.J. Herrmann; Prof. K-P Lesch, and Prof. Andreas Mülberger
4. **Masters of Cognitive Science** (GPA: 7.13/9.00). Centre of Behavioural and Cognitive Science, University of Allahabad. “Time perception & Emotion: Effect of emotions on duration judgments” (2007-2009). Supervisor: Prof. N. Srinivasan
 5. **Bachelors of Applied Science** (67%). Department of Bioinformatics, University of Allahabad, India (2004-2007)

AWARDS & RECOGNITION

1. Invited to attend **IBRO-APRC School on Cognitive Neuroscience: The 5th Bangalore Cognition Workshop**, Indian Institute of Science, Bangalore (June 17th - 29th 2018)
2. Invited to attend **International Forum for Young Scientist-2017, Shenzhen University, China**: (26th December – 29th December 2017)
3. **Best Poster Presentation: “Advances in Neuroimaging and Applications in Cognitive Disorders”** from National Brain Research Centre (NBRC), Manesar, India: (3rd May 2016-4th May 2016; Can transcranial direct current stimulation (tDCS) moderate social fear learning?)
4. **Best Publication Award 2013** from Gk-Emotions: (October 2013; Effects of transcranial direct current stimulation on consolidation of fear memory. *Frontiers in Psychiatry*, 4. doi: 10.3389/fpsy.2013.00107.).

SYMPOSIUM ORGANIZED

1. **Adaptive Brain ~ An Affective Cognitive Neuroscience-Based Approach to Stimuli Processing in Healthy Individuals** (*XXXVI Annual Meeting of Indian Academy of Neurosciences, Banaras Hindu University, Varanasi, India, October 29-31, 2018*)
2. **Human Factors Intercation of human cognition and physiology with the environment** (*4th Annual Conference on Cognitive Science, University of Hyderabad, October 5th – 7th, 2017*)
3. **Adaptive Brain – Gender based Differences in Affective and Cognitive Neuroscience** (*XXXV Annual Meeting of Indian Academy of Neurosciences, Ravenshaw University, Cuttuck, India, October 29-31, 2017*)
4. **Adaptive Brain - Measurement to Stimulation Methods in Cognitive Neuroscience** (*XXXIV Annual Meeting of Indian Academy of Neurosciences, National Brain Research Centre, Manesar, India, October 19-21, 2016*)
5. **Introduction talk on Transcranial direct current stimulation (tDCS)** (*Gk-Emotion: Summer School 2010, Benediktushöhe, Retzbach, Germany October 12-14, 2010*)

PRE-DOCTORAL POSITION

1. Research Assistant. International Institute of Information Technology (I.I.I.T) Hyderabad, India. 06.2009-10.2009
2. Junior Research Fellow. Centre for Cognitive Science, University of Hyderabad, India. 10.2009-11.2009

RESEARCH INTEREST

1. Social, emotional, and cognitive aspects of human cognitions
2. Psychophysiology of pathological learning and memory
3. Ethnicity & gender difference

4. Non-invasive brain stimulation methods (tDCS, TMS)

PUBLICATIONS

1. Huang, Y., Zuo, K., **Asthana, MK.**, Comfort, WE., and Xu., Z: How robust and rapid can the memory-driven attentional capture be? (*Current Psychology*, 2019)
2. Donate, A.P.G., Marques, L.M., Lapenta, O.M., **Asthana, MK.** & Boggio, P.S.: Ostracism via virtual chat-room-effects on basic needs, anger, and pain (*PLOS ONE* 12(9): e0184215)
3. Busin, Y, Lukasova, K., **Asthana, MK** & Macedo, E. C.: Hemiface differences in visual exploration patterns when judging the authenticity of facial expressions (*Frontiers in Psychology*, 2017)
4. Ana Ganho-Ávila, A., Gonçalves, O., Boggio, P.S., **Asthana, MK**, and Almeida, J: The effect of inhibitory transcranial direct current stimulation on the right Dorsolateral Prefrontal cortex on fear extinction (bioRxiv, DOI: 10.1101/561803)
5. **Asthana, MK**, Brunhuber, B., A., Schneider, S., Muehlberger, A., Reif, A., & Herrmann, M.J.: Preventing the return of fear using reconsolidation update mechanisms depends on the Met-allele of the Brain Derived Neurotrophic Factor Val66Met polymorphism. *International Journal of Neuropsychopharmacology*, DOI 10.1093/ijnp/pyv137
6. **Asthana MK.**: Opinion: Weak direct current stimulation a new prospect in William syndrome disorder with regard to social fear (*American Journal of Psychology and Behavioral Sciences* in Volume 2, Issue 5, Oct. 2015)
7. Singh, R., & **Asthana, M.**: Opinion Article: Fear learning and Childhood Autism. *International Journal of Psychosocial Research*, vol.3 Issue (2), December, 2014
8. **Asthana M**, Nueckel K, Mühlberger A, Neueder D, Polak T, Domschke K, Deckert J and Herrmann MJ (2013). Effects of transcranial direct current stimulation (tDCS) on consolidation of fear memory. *Front. Psychiatry* 4:107. doi: 10.3389/fpsy.2013.00107
9. Boggio, P.S., **Asthana, M.**, Costa, TL., Valasek, CA, & Osório, A.: Promoting social plasticity in developmental disorders with non-invasive brain stimulation techniques (*Front. Neuroscience*, 10.3389/fnins.2015.00294)
10. Bellaïche, L., **Asthana, M.**, Ehliis, AC., Polak, T., & Herrmann, M.J.: The Modulation of Error Processing in the Medial Frontal Cortex by Transcranial Direct Current Stimulation, *Neuroscience Journal*, vol. 2013, Article ID 187692, 10 pages, 2013. doi:10.1155/2013/187692
11. **Asthana, MK**, Ganho-Ávila, A. & Bhushan, B.: A Psychophysiological Study Across Arousal and Valence Dimensions: Are Females More Responsive Than Males To Affective Stimuli? (**under revision**)
12. **Asthana, MK** & Bhushan, B.: Ethnic difference in affective stimuli processing across arousal and valence dimensions: Results from Mexico & India (under preparation)
13. **Asthana MK.**: Short communication: Consideration of physiological monitoring in the study of anxiety research (**under revision**)
14. Singh, R., & **Asthana, MK.**: Perspective on parental involvement and intervention program in autism (under preparation)

FELLOWSHIP

1. Grant for Post-doctoral fellow (2016) by HSS department of IIT-Kanpur (accepted)
2. Grant for Post-doctoral fellow (2014) by PNPDP/CAPES for Mackenzie Presbyterian University (accepted)

3. Graduate Merit Scholarship for 2 years (2007-2009) by Centre of Behavioural and Cognitive Sciences (accepted)
4. Grant for Doctoralship for 3 years (2010-2013) by Research Training Group RTG 1253/1: Gk-Emotions (accepted)
5. Graduate School of Life Sciences Travel Fellowship for attending the ESF-FENS Conference on "The Neurobiology of Emotion" Stresa, Lago Maggiore, Italy (2012)
6. Graduate School of Life Sciences STIBET Fellowship for finishing doctoral thesis project (2013)
7. Selected for Junior Research Fellowship (DST) (2009) in the project "Information organization in normative multilingualism" by Center for Cognitive Science, University of Hyderabad

Some other research projects

1. **Project on metaphors used in biomedical papers:** (*1st August 2009 – 30th October 2009; Supervisor: Prof. Bipin Indurkha*).
2. **Decision Making and Cerebral Asymmetry in Ultimatum Game:** (*September 2007-December 2007; Supervisor: Prof. N. Srinivasan*)

CURRENT COLLABORATORS

1. Prof. Sivakumar Krishnan (**Vishnu Educational Development & Innovation Center**)
2. Prof. Braj Bhusan (**Indian Institute of Technology Kanpur**)
3. Dr. Alicie Abundis (**University of Guadalajara, Mexico**)
4. Dr. Priyanka Srivastava (**IIIT- Hyderabad**)
5. Dr. Ana Ganho (**University of Coimbra, Portugal**)
6. Dr. Martin J. Herrmann (**University of Wuerzburg, Germany**)

EDITORIAL & REVIEWER SERVICE

1. Brain Stimulation (BS)
2. Neuropsychology
3. Frontiers in Human Neuroscience (FHN)
4. International Journal of Psychiatry in Clinical Practice (IJPCP)
5. Journal of Anxiety disorder (JAD)
6. International Journal of Psychotherapy (IJP)
7. American Journal of Psychology and Cognitive Science (AJPCS)
8. American Journal of Psychology and Behavioral Science (AJPBS)
9. American Journal of Applied Psychology (AJAP)
10. American Journal of Education Research (AJER)
11. American Journal of Social Sciences (AJSS)
12. Advances in Biomedical Sciences (ABS)
13. Journal of Social Sciences and Humanities (JSSH)
14. Advances in Applied Psychology (AAP)
15. Open Science Journal of Psychology (OSJP)

TALKS

1. Ethnic difference in affective stimuli processing across arousal and valence dimensions: Results from Mexico & India (*XXXVI Annual Meeting of Indian Academy of Neurosciences, Banaras Hindu University, Varanasi, India, October 29-31, 2018*)

2. Cathodal tDCS enhances extinction-based procedures (*3rd European Conference on Brain Stimulation in Psychiatry, Lyon, France, 18th -20th October 2018*)
3. Gender differences and physiological alterations during affective picture processing (*Biomedical Signal Processing and Analysis for Cognitive Neuroscience Study, Poojya Doddappa Appa College of Engineering, Karnataka, January 1st-12th January, 2018*)
4. Interaction of human cognition and physiology with the environment (*4th Annual Conference on Cognitive Science, University of Hyderabad, October 5th – 7th, 2017*)
5. Physiological differences between gender. Implications for affective stimuli processing (*XXXV Annual Meeting of Indian Academy of Neurosciences, Ravenshaw University, Cuttack, India, October 29-31, 2017*)
6. Respiratory response and heart-rate variability for context dependent word-picture pairing (*International Stress and Behavior Society Symposium: Translational Neuroscience of Stress, San Diego, USA, November 10-11, 2016*)
7. Transcranial direct current stimulation and associative fear learning (*XXXIV Annual Meeting of Indian Academy of Neurosciences, National Brain Research Centre, Manesar, India, October 19-21, 2016*)
8. The Brain-Derived Neurotrophic Factor Val66Met Polymorphism Moderates Reconsolidation of Fear Memory in Humans (*Bernstein Conference, 15th-17th Sep., 2015 in Heidelberg, Germany*)
9. tDCS and fear memory consolidation (VI International Symposium on Neuromodulation, August 22nd to 27th, 2014 in Sao Paulo, Brasil)
10. Alteration of fear memory via weak electrical stimulation (tDCS), behavioral and genetic polymorphism to prevent fear return (*24th Annual Neurobiology Doctoral Student Workshop (NeuroDoWo), July 24th – 26th, 2013 in Göttingen/Germany*)
11. Effects of Weak Transcranial Direct Current Stimulation (tDCS) on consolidation of fear memory (*Amsterdam-Memory Slam, August 30th – 31st, 2012 in Amsterdam/Netherlands*)
12. Effects of Weak Transcranial Direct Current Stimulation (tDCS) on Conditioned Fear (*23rd Annual Neurobiology Doctoral Student Workshop (NeuroDoWo), August 1st – 3rd, 2012 in Marburg/Germany*)
13. Effects of DC Polarization on the Consolidation of Fear Learning (*Gk-Emotion: Journal Club, Markus Straße, Würzburg, May, 2012*)
14. Effect of single exposure of non-reinforced conditioned stimulus before extinction training (*Gk-Emotion: Journal Club, Markus Straße, Würzburg, February, 2012*)
15. Fear learning becomes resistive with a single brief exposure of non-reinforced conditioned stimulus (*Gk-Emotion: Journal Club, Markus Straße, Würzburg, June, 2011*)
16. Mimicry: Imitating Species (*Gk-Emotion: Summer school 2011, AWO-Akademie Marktbreit, October 12-14, 2011*)
17. Fearless Brain: SM's case study (*Gk-Emotion: Journal Club, Markus Straße, Würzburg, June, 2011*)
18. Reminder blocks fear from returning in an Auditory Conditioning Paradigm (*Klinik für Psychosomatics, Psychotherapy and Psychiatry, Würzburg, August, 2011*)
19. Neurobiology of fear and anxiety (*Gk-Emotion: Spring school 2011, Tagungsstätte Schloss Schwanberg, Rödelsee, April 13-15, 2011*)
20. Use of transcranial direct current stimulation (tDCS) in the extinction of a Fear Conditioning (*Gk-Emotion: Journal Club, Markus Straße, Würzburg, November, 2010*)
21. Introduction talk on Transcranial direct current stimulation (tDCS) (*Gk-Emotion: Summer School 2010, Benediktshöhe, Retzbach, October 12-14, 2010*)
22. Neuroscience nanotechnology: progress, opportunities and challenges (*Centre of Behavioural and Cognitive Sciences, Oct. 2008*)
23. Developmental Dyslexia: Genetic Dissection of a Complex Cognitive Trait (*Centre of Behavioural and Cognitive Sciences, March 2008*)

24. Emotional information in an oddball paradigm affects time perception (*Department of Humanities and Social Sciences, Indian Institute of Technology, Guwahati, 14-17, Dec. 2008*)

POSTER PRESENTATION

1. Effects of contextual word-picture pairing on psychophysiological response (***Society for Neuroscience***, 12th-16th November, 2016 in San Diego, USA)
2. Can transcranial direct current stimulation (tDCS) moderate social fear learning? (***Advances in Neuroimaging and Applications in Cognitive Disorders***, 3rd-4th May 2016, Manesar, India)
3. Heart-rate variability: Determinants of cortical neurostimulation in social fear learning (***VII International Symposium on Neuromodulation***, August, 2015 in Sao Paulo, Brasil)
4. Modulatory effects of weak neurostimulation in social fear learning (***VII International Symposium on Neuromodulation***, August, 2015 in Sao Paulo, Brasil)
5. The effects of Transcranial Direct Current Stimulation (tDCS) on consolidation of fear Learning (***Society for Neuroscience***, 12th-17th Oct., 2012 in New Orleans, USA)
6. Effects of Transcranial Direct Current Stimulation (tDCS) on stabilization of fear memory (***Cognitive Enhancer: 22nd Neuropharmacology Conference***, 10th-11th Oct., 2012, New Orleans, USA)
7. Effects of transcranial direct current stimulation (tDCS) on extinction of learned fear (***ESF-FENS Conference Neurobiology of Emotion***, 1th-15th Nov., 2012 in Stresa, Italy)
8. Suppression of fear recall by targeting memory reconsolidation (***21st Neuropharmacology Conference***, 10th-11th Nov., 2011, USA)
9. Reminder blocks fear from returning in an Auditory Conditioning paradigm (***2nd International Congress on Neurobiology, psychopharmacology & Treatment Guidance***, 24th-27th Nov., 2011, Greece)
10. Reminder Impairs Fear Retrieval in an Auditory Conditioning Paradigm (***2nd International Symposium SFB TRR 58: Fear, Anxiety, Anxiety Disorders***, Würzburg, 15.-17.09.2011, Germany)
11. Emotional information affects duration judgments (poster presentation in ***International Conference on Attention: Centre of Behavioral and Cognitive Sciences***, 8th Dec. 2008)
12. A Proposed Approach for Testing the Hypothesis that Cognates & Background Information Together Facilitate Vocabulary Learning (poster presentation in ***International Conference on Language-Cognition Interface: Center of Behavioral and Cognitive Science***, 6th-9th Dec. 2009)

CONFERENCES ATTENDED

1. **ESF-FENS Conference: The Neurobiology of Emotion** (Stresa, Lago Maggiore, Italy, 11th-15th Nov. 2012)
2. **Annual meeting of the Society for Neuroscience 2012** (New Orleans, USA 12th-17th Oct., 2012)
3. **Cognitive Enhancers: 22nd Neuropharmacology Meeting** (New Orleans, USA 10th-11th Oct. 2012)
4. **Amsterdam Memory Slam** (Amsterdam, Netherland 30th-31st Aug., 2012)
5. **Annual meeting of the Society for Neuroscience 2011** (Washington DC, USA 12th-16th Nov., 2011)
6. **Anxiety and Depression: 21st Neuropharmacology Meeting** (Falls Church, Virginia, USA 10th-11th Nov., 2011)
7. **2nd International Congress on Neurobiology, psychopharmacology & Treatment Guidance** (Thessaloniki, Greece 24th-27th Nov., 2011)

8. **2nd International Symposium SFB TRR 58: Fear, Anxiety, Anxiety Disorders** (Würzburg, Germany 15th -17th Sep., 2011)
9. **19th EPA Congress - European Psychiatric Association** (Vienna, Austria 12th - 15th Mar., 2011)
10. **Face Perception:** Guest Lecture by Dr. Avi Chaudhary, McGill, Canada (Centre of Behavioural and Cognitive Sciences, January 2009)

WORKSHOPS ATTENDED

1. Functional Brain Imaging training workshop at the Athinoula Martinos Center for Biomedical Imaging, October 3-7, 2011 (*The Athinoula A. Martinos Center, The Massachusetts General Hospital for Biomedical Imaging, Charlestown, Massachusetts, USA*)
2. NWG Practical Course TMS / tXCS, February 22 - 24, 2011 (*Universitätsmedizin Göttingen, Department of Clinical Neurophysiology, Göttingen, Germany*)
3. International Workshop on Frontiers in Nanobiotechnology, 1st December, 2006 (Center of Biotechnology, University Of Allahabad, Allahabad)
4. National School on New dimension to NMR: From Molecules to Human Behavior (May 12-17, 2008); NMR Research Center, Indian Institute of sciences, Bangalore-560012
5. National Seminar on Classical Indian Philosophies of Mind and Cognitive Science (*Centre of Behavioural and Cognitive Sciences, February 29-March 2 2009*).
6. Neurofeedback-Biofeedback and Psychological Testing Workshop (16th July, 2009; Hotel Times Square, Opp.Clock Tower, Secunderabad, Prasad Psycho Corporation)

PROFESSIONAL MEMBERSHIP

1. European Society for Cognitive and Affective Neuroscience (ESCAN) since 2016
2. Indo Universal Collaboration for Engineering Education (IUCEE) since 2018
3. National Association for Media Literacy Education (NAMLE) since 2018
4. Society for Neuroscience since 2012
5. Lifetime membership: NMR Research Centre (NMR); Indian Institute of Sciences, Bangalore-560002.India. Since 2009
6. The Psychonomic Society since 2015
7. Neuroline Community Leader (2016- now)

RESEARCH SKILLS

- *DC-Stimulator:* Anodal and Cathodal stimulation
- *Electrocardiography:* Heart rate variability and Inter-beat-interval analysis (BioPac Inc.)
- *Skin Conductance Response and Startle:* Skin conductance response recording and analysis (BioPac Inc, & Vision Inc.)
- *Electrophysiological:* EEG/ERP imaging and analysis on a 64-channel electrode system (Neuro Scan Inc.)
- *Eye-Tracker:* Eye Movements Recording and Analysis using SMI iView X 1250 Hz.
- *Operating System:* Windows-Xp, i-Mac, Linux
- *Programming:* MATLAB, Python
- Statistical Packages: SPSS, STATS, CurveExpert1.3
- *Experimental Environments:* Direct-RT, E-prime, Presentation, SR research, BioPac, Acknowledge

- *Neuropsychological*: Assessment and Rehabilitation using various batteries and tests such as Cognitive Assessment System, Luria-Nebraska Neuropsychological Battery, Wisconsin Card Sorting Test, Brain Function Therapy, etc.

SOCIAL ACTIVITIES

- Highland dancer in Sao Paulo Scottish Dance Club
- Karate training
- Cooking food with friends
- Travelling and exploring new places

ADDITIONAL INFORMATION

Citizenship: Indian

Passport Nr.: **R4180815**

Marital status: Single

Date of birth: Oct.7, 1984

Languages Speak: English, Hindi, Portuguese (basic) and German (basic)

Languages Understand: English, Hindi, and German

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REFERENCES

Prof. Dr. Sivakumar Krishnan

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Dr. S. Sundarrajan (Director)

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