



International Parkinson and  
Movement Disorder Society

## MDS-AOS Deep Brain Stimulation in Movement Disorders

DAY 1 Friday November 8, 2019	
7:00 – 7:45	Registration
7:45 – 8:00	Welcome from Course Directors
8:00 – 8:30	Introduction to DBS in Parkinson's disease <i>Rupam Borgohain, India</i>
8:30 – 9:10	Early Stimulus – how early can we go <i>Vinay Goyal, India</i>
9:10 – 9:50	Beyond Motor Symptoms in Parkinson's disease – changing paradigms for DBS <i>Asha Kishore, India</i>
9:50 – 10:30	Continuous dopaminergic stimulation – DBS, duodopa and apomorphine – choice dilemma <i>Hrishikesh Kumar, India</i>
10:30 – 10:45	Discussion Panel <i>Rupam Borgohain, Vinay Goyal, Asha Kishore, and Hrishikesh Kumar</i>
10:45 – 11:00	Tea/Coffee Break
11:00 – 11:40	DBS for tremor – primary and secondary <i>Pramod Pal, India</i>
11:40 – 12:20	DBS for dystonia – GPi, STN or Thalamus <i>Charulatha Sankhla, India</i>
12:20 – 13:00	Newer indications for DBS <i>Aditya Gupta, India</i>
13:00 – 13:15	Discussion Panel <i>Pramod Pal, Charulatha Sankhla, Aditya Gupta</i>
13:15-14:00	Lunch
14:00 – 14:40	Visualizing the target pre-op (anatomical target definition) <i>Albert Fenoy, United States of America</i>
14:40 – 15:20	DBS and electrophysiology (physiological target definition) <i>Asha Kishore, India</i>
15:20 – 16:00	Neuronal oscillations in basal ganglia – closed loop DBS <i>Chun Hwei Tai, Taiwan</i>
16:00 – 16:15	Discussion Panel Albert Fenoy, Asha Kishore, Chun Hwei Tai
16:15 – 16:30	Tea/Coffee Break
16:30 – 17:10	Long term management (gait and balance issues) <i>Rupam Borgohain, India</i>
17:10 – 17:50	Case selection- Outliers and outcome <i>Charulatha Sankhla, India</i>
17:50 – 18:30	Review of selection criteria and counseling before DBS with Case presentation <i>Rukmini Mridula, India</i>
19:30 – 21:00	Dinner

**DAY 2 Saturday, November 9, 2019**

8:00 – 10:45	Live DBS surgery <i>Ravi Gopal Varma, India and Rajesh Alugolu, India</i>	
10:45 – 11:00	Tea/Coffee Break	
11:00 – 11:40	Troubleshooting DBS surgery <i>Ravi Gopal Varma, India</i>	
11:40 – 12:20	Frameless versus frame stereotaxy <i>Albert Fenoy United States of America</i>	
12:20 – 13:00	MER versus Neuronavigation in DBS <i>Elena Moro, France</i>	
13:00 – 13:15	Discussion Panel <i>Ravi Gopal Varma, Albert Fenoy, and Elena Moro</i>	
13:15 – 14:00	Lunch	
14:00 – 14:40	Complications of DBS <i>Pramod Pal, India</i>	
14:40 – 15:20	Post op imaging – what is the evidence <i>Vinay Goyal, India</i>	
15:20 – 16:00	DBS and neuroprotection <i>Chun Hwei Tai, Taiwan</i>	
16:00 – 16:15	Discussion Panel <i>Pramod Pal, Vinay Goyal, and Chun Hwei Tai</i>	
16:15 – 16:30	Tea/Coffee Break	
16:30 – 19:00	Videos of Challenging Cases	
	16:30 – 17:00	<i>Prashanth LK, India</i>
	17:00 – 17:30	<i>Pettarusp Wadia, India</i>
	17:30 – 18:00	<i>Hrishikesh Kumar, India</i>
	18:00 – 18:30	<i>Rukmini Mridula, India</i>
	18:30 – 19:00	Discussion Panel
19:30 – 21:00	Dinner	

**DAY 3 Sunday, November 10 2019****Parallel Sessions**

	DBS Programming		Frames and Stereotaxy	
8:00 – 10:15	8:00 – 8:40	Approach to programming <i>Prashanth LK, India</i>	8:00 – 8:40	Principles of Stereotaxy <i>Anand Balasubramanyam, India</i>
	8:40 – 9:20	Frequency and pulse modulation in programming <i>Pettarusp Wadia, India</i>	8:40 – 10:15	Demonstration of frames – Hands on Workshop <i>Anand Balasubramanyam, Aditya Gupta, Rajesh A India</i>
	9:20 – 10:00	Fine tuning and steering DBS <i>Elena Moro, France</i>		
	10:00 – 10:15	Discussion Panel <i>Prashanth LK, Pettarusp Wadia, and Elena Moro</i>		
10:15 – 10:30	Tea/Coffee Break			
10:30 – 12:45	DBS programming-Hands on experience <i>Prashanth LK, Pettarusp Wadia, Hrishikesh Kumar, and Rukmini Mridula</i>			
12:45 – 13:00	Vote of thanks and Closing Remarks			
13:00 – 14:00	Lunch			