

## **Dr RAJU SURESH KUMAR, Ph.D., FAGE**

*Assistant Professor of Physiology,*

*Course Coordinator for Anatomy & Physiology*

*College of Science and Health Professions (COSHP)*

*King Saud bin Abdulaziz University of Health sciences (KSAU-HS)*

*National Guard Health Affairs (NGHA)*

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### **PROFILE SNAPSHOT**

- A credible, effective and efficient Professor with over **14 years' experience** and proven expertise in conveying knowledge to learning individuals; distinguished as a professional in delivering lectures, grading papers and exams
  - Currently associated with **King Saud bin AbdulAziz university of Health sciences (KSAU-HS), National Guard Health Affairs (NGHA) Jeddah as an Assistant Professor in Physiology**
  - Excellent ability to deliver quality instructions and lectures ensuring student satisfaction; uncommon and strong communication and interaction skills; a keen ability in conducting researches and studies; profound knowledge in all physiology subject matters
  - Teaching skills to relate human physiology to clinical medicine in a simple way using case based scenarios
  - Ability to manage academic programs and guiding undergraduate research projects with expertise in designing selection criteria, syllabi, learning sessions, evaluations & assessments.
  - Excellent teaching skills and ability to communicate the complex information in a simple manner
  - Adept at overseeing student life, developing programs and services and providing strategic leadership on academic Programs
  - Good planning, organizing and time management skills to plan the goals and achieve them
  - Ability to design different methods that will help the students to grasp the knowledge in a faster way
  - Self driven with a firm belief in right values, ability to inspire peers, juniors and students to surpass expectations
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### **EDUCATIONAL QUALIFICATIONS**

#### **Ph.D. (Physiology) 2012**

Manipal University, India

#### **MSc (Medical) Physiology, 2002**

Manipal University, India

#### **Bachelor of Science in Zoology, 1998**

University of Calicut, India

#### **Certifications**

Institute for Health care improvement (IHI) Certificate for faculty development (2017) Cambridge, UK

Institute for Health care improvement (IHI) Basic certificate in Quality improvement (2017), Cambridge, UK

Biostatistics, Epidemiology & Research methodology (2012) Manipal University, India

Certified internal auditor for ISO 9001:2008 & ISO 14001:2004, *TUV Rheinland (India) Pvt Ltd*

*Basic life support (BLS) course from Manipal University (2014)*

#### **Fellowships**

Fellow of Academy of General Education (FAGE)

Manipal University, India

## PROFESSIONAL OUTLINE

Currently working as an Assistant Professor of Physiology, College of Science and Health Professions (COSHP) at

King Saud bin Abdul-Aziz University of Health sciences (KSAU-HS), National Guard Health Affairs Jeddah, Kingdom of Saudi Arabia (KSA); from **November 2014 - till date**

### Past work experience

Manipal University, India from **Aug 2003 – October 2014**, as Assistant Professor in Physiology (senior scale)

### Career Graph

- Assistant Professor in Physiology, Feb 2012 – Till Date
- Senior Grade Lecturer in Physiology, Aug 2009 – Feb 2012
- Lecturer in Physiology, Aug 2003 – Aug 2009

### **Current responsibility:**

- Currently functioning as the course coordinator for Anatomy and physiology at College of Science and Health Professions, King Saud bin Abdul-Aziz university of Health sciences (KSAU-HS) Jeddah, Kingdom of Saudi Arabia (KSA)
- Member of faculty enhancement committee of COSHP-Jeddah
- Mentoring undergraduate short term elective research projects
- Advising junior faculty in their research projects
- Member of Saudi Society for Medical Education (SSME) from 2015 till date
- Member of Institutional quality accreditation committee - National Commission for Academic Accreditation and Assessment (NCAAA) for Saudi Arabian universities – till date

### Key Responsibilities in the past:

- Taught all topics of human physiology with equal interests and passion with effective and creative teaching innovations in par with the current trends of medical education (role-play teaching, student involved demonstrations methods, online mentoring via discussion groups etc are some of the adopted teaching methods.)
- Involved in planning, implementing and periodically reviewing the physiology curriculum and course content of MBBS and BDS programs of Melaka-Manipal Medical and Dental twinning program, Manipal University
- Involved in didactic lectures, discussions and practical classes for the MBBS, BDS & Allied health science programs of Manipal University.
- Extensive experience in conducting student learning modalities like **Problem based learning (PBL)**, **Case based Learning (CBL)** and **Self-directed learning (SDL)** at Manipal University.
- Preparation of question papers in theory practical's and OSPE for internal examinations & university examinations.
- Functioned as an internal examiner and external examiner in the evaluation of the theory and practical component of the final summative examination for the MBBS program, Dental program and various Allied health sciences courses in various Universities across India.

- Active involvement in Neuroscience and Medical educational research
  - Functioned as faculty coordinator for the mentorship scheme of Melaka- Manipal Medical college (Manipal Campus), Manipal University India
  - Functioned as a research guide for undergraduate medical students in their research projects
  - One of the resource person involved in the conduction of Neuroscience workshops for undergraduate students as a part of popularizing Neuroscience education in India
  - Part of institutional quality control team for maintaining ISO standards at Manipal University India
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#### AWARDS AND ACHIEVEMENTS

- Co-authored an award winning research paper entitled *“Possible cause for altered spatial cognition of prepubescent rats exposed to chronic radiofrequency electromagnetic radiation”* This paper received the prestigious TMA Pai Gold Medal for outstanding medical research by Manipal University, India in the year 2017.
- Best Mentor Award, Division G directors cup, Toastmasters International, Jeddah, KSA October 7,2016 (Extracurricular award)
- Second Prize Winner (Area Championship - Public Speaking (International speech category), Toastmasters International, District 79 Jeddah, KSA 2016 (Extracurricular award)
- Rated as the **2<sup>rd</sup> Best Teacher** among first year faculty in Melaka-Manipal Medical College (Manipal Campus), Manipal University voted by the students in the year 2013-2014.
- Invited as a **scientific judge** for Indian Science & Engineering Fair (INSEF 2013 ) at Mangalore ,India organized by **Science Society of India (SSI)** from September 6<sup>th</sup> to 7<sup>th</sup> ,2013: [http://articles.timesofindia.indiatimes.com/2013-09-04/mangalore/41764831\\_1\\_science-fair-projects-science-society](http://articles.timesofindia.indiatimes.com/2013-09-04/mangalore/41764831_1_science-fair-projects-science-society)
- Co-authored an award winning research paper entitled *“Analysis of emotionality and locomotion in radio-frequency electromagnetic radiation exposed rats”*. This paper received the prestigious **TMA Pai Gold Medal** for outstanding medical research by Manipal University in the year 2013.
- Co-authored an award winning research paper entitled *“Students- involved demonstration approach to teach the Physiology of vestibular apparatus to undergraduate medical students”*. This paper received the prestigious **TMA Pai Gold Medal** for outstanding medical research by Manipal University in the year 2012.
- Won **second prize** for the best Audio-visual teaching material titled *“Preparing drug for parenteral administration and setting up an intravenous infusion”* in the year 2012
- Invited as a **Resource person** for the Collaborative undergraduate research and education (CURE 2012) workshop conducted by Homibhabha Institute of Science education on June 29- July 1, 2012 at Mumbai. (Please go through the short report published in the online science magazine India Bioscience : <http://www.indiabioscience.org/node/817>
- **First Prize Winner** of GIBS part I **“Brain and Behavior”** poster presentation organized by Homi bhabha institute of science education, Mumbai in the year 2011
- **Winner of the first prize** for the best Audio-visual teaching material titled *“Over view of motor system examination and role- play demonstrations of the associated disorders”* in the year 2010

## LIST OF PEER REVIEWED RESEARCH PUBLICATIONS

- Narayanan SN, **Kumar RS**, Karun KM, Nayak S, Bhat PG (2015). Possible cause for altered spatial cognition of prepubescent rats exposed to chronic radiofrequency electromagnetic radiation. *Metabolic Brain Disease*. 2015 Jun 3. **Impact factor : 2.638**
- Narayanan SN, Jetty R, Gorantla VR, **Kumar RS**, Nayak S, Bhat PG (2014) Appraisal of the Effect of Brain Impregnation Duration on Neuronal Staining and Morphology in a Modified Golgi-Cox Method. *Journal of Neuroscience Methods*. **Impact factor : 1.959**
- Narayanan SN, **Kumar RS**, Kedage V, Nalini K, Nayak S, Bhat PG (2014). Evaluation of oxidant stress and antioxidant defense in discrete brain regions of rats exposed to 900 MHz radiations *Bratislava Medical Journal*. **Impact factor : 0.50**
- Narayanan SN, **Kumar RS**, Paval J, Kedage V, Bhat MS, Nayak S, Bhat PG, (2012). Analysis of emotionality and locomotion in radio-frequency electromagnetic radiation exposed rats. *Neurological Sciences (Springer)* Sep 14. [Epub ahead of print] **Impact factor : 2.243**
- Narayanan SN, **Kumar RS**, Nayak S (2011). Students- involved demonstration approach to teach the Physiology of vestibular apparatus to undergraduate medical students. *Teach Learn Med*. Jul-Sep; 23(3):269-77. **Impact factor : 1.173**
- Paval J, Kaitheri SK, Kumar A, Govindan S, Ciraj A M, **Kumar RS**, Narayanan SN, Prasad AM (2011). Anti-arthritis activity of the plant *Tinospora cordifolia* willd *Journal of Herbal Medicine and Toxicology*5 (1) 11-16.
- Narayanan SN, **Kumar RS** Paval J, Nayak S (2010) Effect of ascorbic acid on the monosodium glutamate induced neurobehavioral changes in periadolescent rats. *Bratisl Lek Listy.*; 111(5):247-52 **Impact factor : 0.50**
- Narayanan SN, **Kumar RS**, Potu BK, Nayak S, Bhat PG, Mailankot M. (2010) Effect of radio-frequency electromagnetic radiations (RF-EMR) on passive avoidance behaviour and hippocampal morphology in Wistar rats. *Ups J Med Sci*. 115(2):91-6. **Impact factor : 1.708**
- Paval J, Kaitheri SK, Potu BK, Govindan S, **Kumar RS**, Narayanan SN (2009) Comparing the anti-arthritis activities of the plants *Justicia gendarussa* Burm F. and *Withania somnifera* Linn. *International Journal of Green Pharmacy* December (3) Issue (4), 281-284. **H Index: 12**
- Paval J, Kaitheri SK, Potu BK, Govindan S, **Kumar RS**, Narayanan SN, Moorkoth S (2009) Anti-arthritis potential of the plant *Justicia gendarussa* Burm F. *Clinics (Sao Paulo)*. 64(4):357-62. **Impact factor : 1.422**
- Narayanan SN, **Kumar RS**, Potu BK, Nayak S. Mailankot M. (2009). Spatial memory performance of Wistar rats exposed to mobile phone. *Clinics (Sao Paulo)*. 64(3): 231-4. **Impact factor : 1.422**
- **Kumar RS**, Narayanan SN, Nayak S (2009) Ascorbic acid protects against restraint stress-induced memory deficits in Wistar rats. *Clinics (Sao Paulo)*. 64(12): 1211-7. **Impact factor : 1.422**
- **Kumar RS**, Rao MS , Nayak S (2007) Narayanan SN .Effect of *ocimum sanctum* (linn) extract on restraint stress induced behavioral deficits in male wistar rats. *Pharmacologyonline*; 3: 394-404; **H Index: 14**
- **Kumar RS**, Narayanan SN ,Nayak S ,Mailankot M (2009). Hypoactivity of Wistar rats exposed to hand-held mobile phone on elevated plus maze *Indian journal of Physiology and Pharmacology* :53(3):283-28. **H Index: 35**
- **Kumar RS**, Narayanan SN, Paval J (2009) Contraceptive failure rate of rhythm method: Possible involvement of pheromones. *Medical Hypothesis*. Dec; 73(6):1079. **Impact factor:1.074**
- **Kumar RS**, Narayanan SN, Paval J (2009). Monotonous sensory stimulation, can it induce sleep in infants? – An insight into the possible neurophysiology. *Medical Hypothesis*. 2009 Nov; 73(5):862-3. **Impact factor:1.074**
- **Kumar RS**, Narayanan SN (2008). Role-playing lecturing: a method for teaching neuroscience to medical students. *Advances in Physiology Education* December; 32(4):329-31. **Impact factor: 1.237.**
- **Kumar RS**, Kamath MG, Maneesh M (2006). Effect of Experimenter – Administered Ethanol on Avoidance Learning- A study in Ethanol Deprived Rats. *Indian journal of Physiology and Pharmacology*, 50 (2):195-197. **H Index: 14**

## SEMINARS/ CONFERENCES

### CME/ Seminars/ Workshops Attended

- Attended and participated a workshop titled “**Effective teaching Skills**” organized by College of Medicine, KSAU-HS Jeddah, on October 30th, 2017
- Attended and participated a workshop titled “**Learning outcome**” organized by College of Science and Health Professions (COSHP) KSAU-HS Jeddah, on May 31<sup>st</sup>, 2016.
- Attended a talk on “**Introduction to cancer biomarkers**” organized by KAIMARC, JEDDAH on March 31, 2016
- Attended and participated a workshop on “**Turnitin plagiarism software**” organized by College of Nursing (CON),KSAU-HS Jeddah, on October 28<sup>th</sup>, 2015.
- Completed an online certificate course on **Medical Terminology** from Des Moines University, IOWA USA on October 12, 2015
- Participated in **Collaborative Undergraduate Biology Education conference (CUBE 2015 SUMMER)** held at Kerala, India on 4<sup>th</sup> and 5<sup>th</sup> August, 2015.
- Workshop on “**Leadership**” organized by Medical Education Division, College of Medicine, King Saud bin Abdulaziz University for Health Sciences, Jeddah on May 27<sup>th</sup> 2015
- Teleconference workshop on “**Curriculum Mapping**” organized by Medical Education Division, College of Medicine, King Saud bin Abdulaziz University for Health Sciences, Riyadh Campus on May 5<sup>th</sup> & 6<sup>th</sup>, 2015
- Participated in a workshop on “**Basics of Biostatistics & SPSS**” organized by Department of Medical Education College of Medicine, King Saud bin AbdulAziz University for Health Sciences, Jeddah on 8-Apr-2015
- Participated in a workshop on “**Workplace Based Assessment**” organized by Deanship of Postgraduate Education Medical Education Division, King Saud bin AbdulAziz University for Health Sciences, Jeddah on February 5, 2015
- Participated in a workshop on ‘**Evolution of Teaching and Learning in Higher Education**’ by Manipal Center for professional and personal development (MCPD),Manipal University,Manipal on 15<sup>th</sup> May, 2014
- Participated in a workshop on ‘**Knowledge, Memory and Learning** ’ by Manipal Center for professional and personal development (MCPD),Manipal University,Manipal on 26<sup>th</sup> April, 2014
- Participated in a workshop on ‘**Effective Electronic Communication**’ by Manipal Center for professional and personal development (MCPD),Manipal University,Manipal on 21<sup>st</sup> December,2013
- Participated in a workshop on ‘**Critical thinking**’ organized by Manipal Center for professional and personal development (MCPD),Manipal University,Manipal on 17<sup>th</sup> December,2013
- Participated in CME programme on “**Brain storming on Memory - An integrated approach**” organized by Dept of physiology KMC, Mangalore on September 27th, 2013.
- Participated in a one day workshop on ‘**Curriculum Design**’ organized by Manipal Center for professional and personal development (MCPD),Manipal University,Manipal on 9<sup>th</sup> July,2013
- Participated in a one day workshop on “**Teacher as a communicator**” organized by Manipal Center for professional and personal development (MCPD),Manipal University,Manipal on 15<sup>th</sup> November,2012.
- **Collaborative undergraduate research and education (CURE 2012)** workshop conducted by Homibhabha Institute of Science education on June 29- July 1, 2012 at Mumbai.
- CME program on “**Neuropsychiatry and Schizophrenia**” organized by Department of Psychiatry, KMC Manipal on 22nd and 23rd April, 2006.
- Participated in a workshop on “**Leadership training programme**” organized by human resource Department of Manipal University in collaboration with Avadana consultancy services, Bangalore organized in Manipal on April, 2006.



- Participated in “**IBRO-VLTP course in Neuroscience**” organized by IBRO (International brain research organization) and NIMHANS (National Institute of Mental health and Neurosciences) at Bangalore, India 24<sup>th</sup> August to 1<sup>st</sup> September, 2005
- Participated in CME programme on “**Diabetes Mellitus**” organized by Dept of physiology KMC, Mangalore on June 25th, 2005.
- Participated a CME on “**Patho-physiology of Hypertension & Recent advances in its management**” organized by Department of Physiology KMC, Mangalore, on 20<sup>th</sup> march 2004.
- Participated in an Indo- Malaysian CME on “**Laboratory Medicine**” organized By Melaka-Manipal Medical College, Manipal On August 23-24, 2004.
- Participated in a five day “**Teaching - Learning and Human resource development workshop**” organized by Department of Medical Education, Manipal from 3rd to 7th February, 2004.
- Participated in a Four day “**Student Evaluation workshop**” organized by Department of Medical Education , Manipal from 19th to 22nd July,2004.
- Participated in a CME on “**Biotechnology and Genetics in Medicine**” organized by Department of Biotechnology Kasturba Medical College, Manipal, on 1<sup>st</sup> November 2003.

## SCIENTIFIC PRESENTATIONS

### International Conferences/Symposiums/Seminars/Workshops

- Was invited a speaker and resource person for the workshop on “**Tips For Effective Lecturing**” organized by College of Medicine, KSAU-HS Jeddah, on October 30th, 2017
- Was invited a speaker and resource person for the workshop “**The Art of lecturing**” during the faculty training and orientation workshop organized by College of Science and Health Professions (COSHP) King Saud bin Abdulaziz university for Health sciences Jeddah, on February 6th, 2017
- Was invited a speaker and resource person for the workshop “**Effective Teaching Skills**” during the faculty training and orientation workshop organized by College of Science and Health Professions (COSHP) Jeddah, on May 30<sup>th</sup>, 2016.
- Was an Invited speaker at **Collaborative Undergraduate Biology Education (CUBE 2015 SUMMER)** held at Kerala, India on 4<sup>th</sup> and 5<sup>th</sup> August, 2015 and delivered a talk titled “**Impact of enriched environment in rats subjected to chronic restraint stress**”.
- Presented a paper titled “**Ascorbic acid restores altered avoidance learning and ameliorates hippocampal injury in rats subjected to chronic restraint stress**” presented at 3<sup>rd</sup> Conference of South Asian Association of Physiologists (SAAP 2012) held at Colombo, Srilanka on November 7-10<sup>th</sup>, 2012.
- Presented a paper titled “**Exposure to enriched environment restores altered hippocampal antioxidant defense status, lipid peroxidation and memory performance in wistar rats subjected to chronic restraint stress**” presented at Neuro-Malaysia Society Symposium held at Monash University, Sunway Campus, Malaysia on December 12-13 ,2011.
- Presented a poster titled “**Role-play lecturing: An innovative method for teaching neuroscience to medical students**” presented at the 6th APMEC, held at National University of Singapore, on February 19<sup>th</sup>-23<sup>rd</sup>, 2009
- Co-authored a poster titled “**Cartoon lecturing: A simple method for making Visual Physiology teaching more interesting**” presented at the 6<sup>th</sup> Asia Pacific Medical education conference, National University of Singapore, on February 19<sup>th</sup>-23<sup>rd</sup> 2009.
- Co-authored a Poster titled “**Accuracy of student’s blood pressure values using a blood pressure simulator-A cross sectional study**” presented at the 6th Asia Pacific Medical education conference, National University of Singapore, February 19<sup>th</sup> – 22<sup>nd</sup>, 2009.

### National Conferences

- Presented a poster entitled “**The effect of ascorbic acid on hippocampal antioxidant enzymes and lipid peroxidation in rats exposed to chronic restraint stress**” at the 27<sup>th</sup> Annual conference of Indian Academy of neurosciences held during 18<sup>th</sup>-20<sup>th</sup> December 2009, at NIMS University, Jaipur, India.
  - Co-authored a poster entitled “**Effect of radio-frequency electromagnetic radiations on passive avoidance behaviour and hippocampal morphology in Wistar rats**”, at the 27<sup>th</sup> Annual conference of Indian Academy of neurosciences held during 18<sup>th</sup>-20<sup>th</sup> December 2009, at NIMS University, Jaipur, India.
  - Co-authored a poster titled “**Effect of Glycyrrhiza glabra (Linn) in comparison with Fluoxetine on Avoidance behavior in male Wistar rats**” presented at the APPICON 2008, on December 27<sup>th</sup>-30<sup>th</sup> 2008. Mangalore, India.
  - Presented a paper entitled “**Ascorbic acid in reversal of restraint stress induced memory deficits in rats**”, presented at the International Conference on Advances in Neurosciences and XXVI Annual meeting of Indian Academy of Neurosciences, on 12<sup>th</sup> -14<sup>th</sup> December 2008, Cochin, India
  - Coauthored a poster titled “**Mobile phone exposure induced behavioral changes in male Wistar rats**”, at the International Conference on Advances in Neurosciences and XXVI Annual Meeting of Indian Academy of Neurosciences, on 12<sup>th</sup> -14<sup>th</sup> December 2008. Cochin, India.
  - Presented a paper entitled “**Effects of Ocimum sanctum (Linn) on restraint stress induced behavioral deficits in male Wistar rats**” presented at 40th national conference of Pharmacological Society at NIPER, Punjab on November 1-3, 2007.
  - Presented a paper entitled “**Effect of ethanol on cognitive function in rats**” presented in the 4<sup>th</sup> Congress of Federation of Indian Physiological Societies (FIPS) organized by Defense Institute of Physiology and Allied Sciences (DIPAS), New Delhi on January 11-13, 2007
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### Research citations in prominent websites

- *Kumar et al (India, 2008) in the official website of PanLab Harward apparatus, Barcelona Spain*
- *Kumar et al (India, 2009) in the official website of PanLab Harward apparatus, Barcelona Spain*

### Editorial Assignments/Reviewer in Research Journals

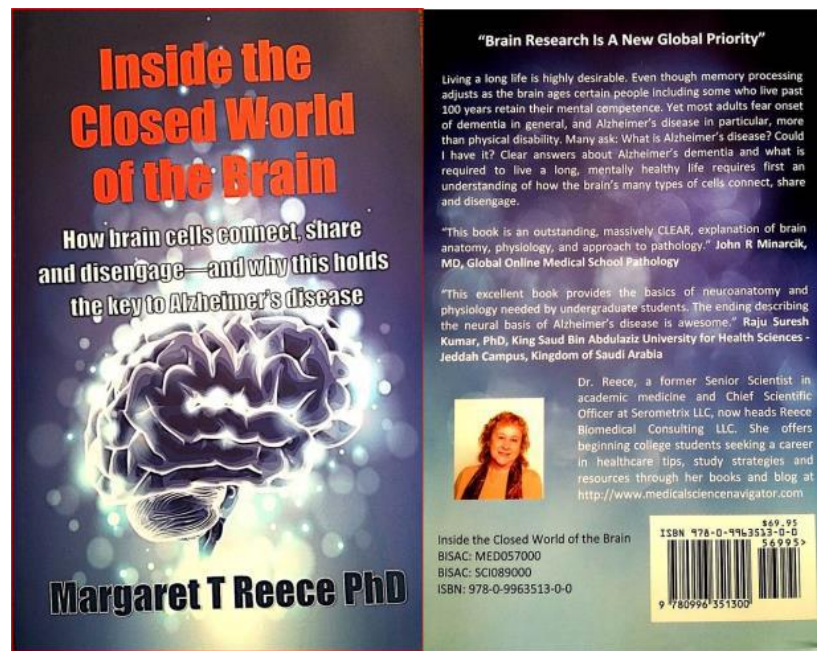
- Clinical Neurology and Neuroscience (Science publishing group) – Editorial board member, 2017
- Saudi Medical Journal (Pubmed)
- Journal of Physiology and Pharmacology Advances (ScopeMed)
- Behavioral and Brain Functions (Bio Med Central)
- Evidence-Based Complementary and Alternative Medicine (Hindawi Publishing Corporation)
- International Journal of Biochemistry Research & Review
- Medical Physiology Text book reviewer for **Wolters Kluwer Health International** publishers

Achieved a certificate course in Medical Terminology from Des Moines University, IOWA USA in October, 2015

Role as a Text Book Reviewer (2015 edition)

Reviewed a neuroscience text book titled "Inside the Closed World of the Brain." written by Prof Dr Margret Reece (Reece Biomedical Consulting LLC, 2015, Paperback ISBN 958-0-9963513-0-0, E-book ISBN 978-0-9963513-1-7) New York

*Link to my endorsement:* <http://www.insidetheclosedworldofthebrain.com>



Professional Membership:

Saudi Society for Medical Education (SSME), since 2015

Indian Association of Neurosciences (IAN) an organization of International Brain Research (IBRO) since 2008.

Research Interest: Cognitive Neuroscience, Medical education and Physiology



**IT skills:** Well versed with Microsoft office, PowerPoint, Adobe lightroom etc.



Blackboard

Well versed with Blackboard teaching software

Expertise in making educational teaching videos for teaching medical and health professional students

*My YouTube teaching videos are well appreciated by many students and healthcare professionals throughout the globe*



<https://www.youtube.com/channel/UCgBSsRvfFdszxi4HFfa8L4A>



**Hobbies :** Photography, A passionate public speaker and a club officer at Toastmasters International

### **Personal details**

Date of birth: 15-10-1977

Family Status: Married and blessed with two children

Citizenship: Indian

Passport (valid): Indian Passport holder (Passport number J3009077)

Iqama: Valid Saudi Iqama (Residence permit)