The traditional symbol of orthopaedic Surgery, described by Nicolas Andry in 1741, is the bent tree that has been braced to make it grow upward and straight.

Ganga Hospital
313 Mettupalayam Road, Coimbatore - 641 043, Tamilnadu, INDIA.
Hospital: +91 422 2485000, 4250000,
Appointment: +91 422 2485025, 2485026, Fax No +91 422 2451444
Email: sr@gangahospital.com, admissionganga@gmail.com, Web: www.gangahospital.com

Activity Report 2013 - 2014

Department of
ORTHOPAEDIC SURGERY
Ganga Hospital, Coimbatore, India.
Founders

Mrs. Kanakavalli Shanmuganathan & Dr. J. G. Shanmuganathan

Vision

- To showcase to the world the best in patient care, surgical expertise, academics, medical ethics and state-of-the-art technology.

- To be a center which will be a pride of our country.

Mission

- To provide quality treatment at affordable cost so that the expertise will be available to every citizen of our country.

Vision

Dr. S. Rajasekaran and Dr. S. Raja Sabapathy
Heads of Departments of Orthopaedic Surgery and Plastic Surgery

Dr Ravindra Bhat

1993-2012

Dr Ravindra Bhat headed the Department of Anaesthesia of Ganga Hospital from 1993-2012 and laid the foundation for trauma care in the hospital. His dedication and involvement in the care of severely injured left an everlasting impression to all those who have met him. He did pioneering work in the initial management of polytrauma victims, regional anaesthesia and nerve block and was a source of inspiration for the numerous fellows and trainees from all over the world.

To perpetuate his memory, ‘Ganga Hospital – Dr Ravindra Bhat Memorial Oration’ has been initiated and will be delivered annually by an eminent medical personnel.

To live in the hearts of those who love you is never to die...
The year 2013 started with a happy note that we became the first Orthopaedic Unit in Asia to be elected to the International Society of Orthopaedic Centres (ISOC), a prestigious forum comprising of only 15 of the most eminent and leading international orthopaedic academic centres in the world. On the national front, we also had the honour of being voted as the Best Orthopaedic Centre in India amongst private hospitals in the survey conducted by the popular magazine 'The Week'. Such honours help us to dedicate ourselves to our mission with greater passion.

The clinical work surpassed all previous years with 25,780 new patients, 1,64,795 total outpatient entries and 21,782 major orthopaedic surgeries. Our quest for high safety standards for patients continued with the acquisition of the AIRO Intraoperative CT based computer navigation (BrainLAB, Germany) which gives the highest level of safety and accuracy in complex spine, joint replacement and tumor surgeries. We are proud to be the first centre in the whole of Asia Pacific region to acquire this sophisticated technology.

Academically, we continue to be in the forefront being recognised by the National Board and the Medical University for a wide range of courses from basic paramedical training to PhD studies in Orthopaedic Surgery. We were happy to be awarded the prestigious ISSLS prize for Spine Research for the third time in 2013 and this award topped the numerous other research awards won at the national and state level.

Notwithstanding the above achievements, our real satisfaction lies in reaching out to the society and making available the high expertise and technology to every citizen of our country. We were the largest participant in the state for the Tamilnadu Chief Minister’s Below Poverty line Scheme performing 3399 complex surgeries providing subsidy of more than Rs. 10 Crores. We also established the Ganga Spine Injury Rehabilitation Centre (GSIRC) under a cost of more than Rs. 3 Crores for subsidized or free rehabilitation for poor patients with spinal cord injury.

I record our gratitude to all our referring physicians for their support, our patients for their trust and the God Almighty for his continued and abundant blessings. We realize that the only way we can pay back His Blessings is to constantly improve and dedicate ourselves back to our society.

Prof. S. Rajasekaran
M.S., DNB., F.R.C.S.(Ed), M.Ch(Liv)., FACS., F.R.C.S.(Eng)., Ph.D
Chairman, Dept of Orthopaedics, Trauma & Spine Surgery.

“Small Aim is a Crime”
- Shri APJ Abdul Kalam
### Highlights 2013 - 2014

#### Prestigious Orations 2013 & 2014
- SICOT Plenary Oration, Hyderabad 2013
- Combined Meeting of SAFO and KOA Plenary Lecture, Kenya 2013
- Prof Marthandam Memorial Oration, 12th Annual Conference of OASISCON, 2013
- Presidential Address, 26th Annual Conference of Association of Spine Surgeons of India, 2013
- 15th Sivasubramaniam Oration, Meeting of Indian Academy of Pediatrics Coimbatore Branch, 2013
- Dr Vyaghreswarudu Memorial Oration, 42nd Annual Conference of OSSAPCON, 2013
- Singaore Orthopaedic Association Plenary Oration, Singapore 2014
- Orthopaedic Association of SAARC Countries Plenary Oration, 2014
- Prof TK Shanmugasundaram Endowment Oration, Chennai, 2014
- Dr Dinubhai Patel Oration, Annual Meeting of the Spine Association of Gujarat, 2014
- North Zone Chapter of Indian Orthopaedic Association, Plenary Lecture, 2014
- Dr MS Ramakrishnan Memorial Endowment Oration, The Child’s Trust Medical Research Foundation, 2014
- Prof M Natarajan Oration, 47th Annual Conference of Tamilnadu Orthopaedic Association, 2014

#### Research Collaborations
- Tamil Nadu Agriculture University, Coimbatore: Gene analysis in patients with back pain
- University of Hongkong: Genetic basis of DDD
- Venkateshwara University, New Delhi: Biochemical analysis of End-Plate in disc prolapse
- Central Leather Research Institute, Chennai: Analysis of collagen characteristics of Lumbar discs in health & disease
- Tromsøe Mine Victim Resource Center: Study on Open Injuries

#### Salient Awards 2014
- ISSLS Best Presentation Award - 2014
- ASSI Basic Science Research Award 2014
- Indian Orthopaedic Association Silver Jubilee Oration - 2014
- IOA Prof Joy Patankar Gold Medal - 2014
- Dr Venkat Rao Oration - Indian Society Of Anaesthesiologists 2014
- Prof Ramanathan Consultant Gold Medal - Tamil Nadu Orthopaedic Association 2014

#### Salient Awards 2013
- ISSLS Basic Science Award 2013
- Orthopaedic Association Of South India States (OASIS) Lifetime Achievement Award 2012
- IOA Basic Science Research Award - 2013
- Indian Orthopaedic Association Young Ambassador Award - 2013
- ASSI Basic Science Research Award - 2013
- Best Case Presentation Award in Arthroplasty - 2013
- Aospine International Research Commission Chair
- PROF A A Mehta Medal - Indian Orthopaedic Association Conference 2013
- IOA RC Rallan Gold Medal - 2013
- IOA Prof Joy Patankar Gold Medal - 2013
- ASSI Publication Award 2013
- PROF P Dhanarajan Gold Medal - Tamil Nadu Orthopaedic Association 2013
- PROF M Natarajan Gold Medal, Tamilnadu Orthopaedic Association 2013
- PROF Ramanathan Consultant Gold Medal, Tamil Nadu Orthopaedic Association 2013

### NABH Accreditation
The hospital was accredited by the National Board of Accreditation for Hospital & Healthcare Institutions.

### Clinical Work

<table>
<thead>
<tr>
<th>Year</th>
<th>Out patients</th>
<th>In patients</th>
<th>Surgeries</th>
</tr>
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<tbody>
<tr>
<td>2012</td>
<td>1,54,790</td>
<td>23,516</td>
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<td>2013</td>
<td>1,62,289</td>
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<tr>
<td>2014</td>
<td>1,89,529</td>
<td>21,503</td>
<td>21,782</td>
</tr>
</tbody>
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### Corporate Social Responsibilities
- **Project “Help Line”**: Help for the Helpless
- **“Uyir”**: A People’s Movement. Against Road Accidents
- **‘SWASAM’**: Inaugurated on Former President, Shri APJ Abdul Kalam
- **“RASTRA”**: “Life Without Disability” Project
- **“GSIRC”**: Ganga Spine Injury and Rehabilitation Centre

### Best Orthopaedic Hospital 2014
Adjudged as the Third Best Hospital in India & Best amongst Private Hospitals

### Research Milestones
- Department of Scientific and Industrial Research (ISIR) Recognition
- Department of Biotechnology (DBT) : Approval for DIT project
- Approval for Ph D program by Dr MGR Medical University and the Madras University

### Conferences Hosted 2013 & 2014
- Ganga Operative Spine Course 2013
- Ganga Operative Arthroplasty Course 2013
- 84th Indian Association of Sports Medicine Congress 2013
- Ganga Operative Trauma Course 2014
- 13 SCS (ISSICON 2013) and 12 ASCON Meeting
- CTTLS - Comprehensive Trauma Life Support Course
- SICOT - (Société Internationale de Chirurgie Orthopédique et de Traumatologie)
- Ganga Operative Pediatric Hip Course 2014
1978 - 1991 - Established in 1978 in Ramnagar, the hospital is named after Shri. J. S. Gangadharan, father of the founder of the hospital, Dr. J. G. Shanmuganathan. 
- 17 beds 
- Two Operating Rooms

1991-1996 The First Expansion
- 42 beds 
- Four Operating Rooms

1996-2007 - The Second Expansion
- 135 beds 
- Six Operating Rooms 
- Intensive Trauma Care Unit

2007... New premises on Mettupalayam Road, Coimbatore
- 486 In-patient beds 
- 20 Operating Rooms 
- Intensive Trauma Care Unit 
- Regional Blood Bank 
- Bone & Tissue Bank 
- Spinal injury Rehabilitation Centre 
- In-house Conference facility with 425 seated Auditorium

2010...
Ganga Institute of Health Sciences
- Diploma in Nursing & Midwifery 
- B.Sc., Nursing – 4 years 
- Post Basic B.Sc., Nursing – 2 years 
- B.Sc., Physician Assistant (Emergency and Trauma Management) – 4 years

Computer Navigated Surgery
- Joint Replacement Surgery
- Spine Surgery
- Sports Medicine and Arthroscopy
- Minimally Invasive Surgery

Shoulder and Elbow Surgery
- Trauma Surgery
The department has grown into an accomplished and skilled team, comprising of six Orthopaedic Consultants heading different sub-specialties, five Associate Consultants and numerous fellows. The department also comprises of a dedicated team for clinical research.

**Chairman, Dept. of Orthopaedic Surgery**
**Prof. S. Rajasekaran**

**Consultants**
- Dr. J Dheenadhayalan
  Complex Trauma Reconstruction
  Upper Limb Surgery
- Dr. T Ajoy Prasad Shetty
- Dr. SR Sundararajan
  Arthroscopy & Sports Medicine
- Dr. Dhanasekara Raja
  Arthroscopy
- Dr. N. Rajkumar
  Arthroscopy

**Associate Consultants**
- Dr. P. Rishi Kanna
  Spine Surgery
- Dr. K. Venkatadasa
  Paediatric Orthopaedics
- Dr. Ramesh Perumal
  Trauma Surgery
- Dr. Devendra A
  Trauma Surgery
- Dr. Arun Kamal C
  Trauma Surgery

**Senior Registrars**
- Dr J Mohamed Zackariaya
- Dr Velmurugesan
- Dr. Janardhan S. Yerramshetty
- Dr. Mohana Krishnan
- Mr Praveen Reddy
- Mr Bala & Mrs R Radha

**Consultants**
- Dr. J Dheenadhayalan
- Dr. T Ajoy Prasad Shetty
- Dr. SR Sundararajan
- Dr. Dhanasekara Raja
- Dr. N. Rajkumar

**Registrars**
- Dr Roy Wilson Armstrong
- Dr Prem James Charles
- Dr S Rajadurai
- Dr K V Arun Kumar
- Dr G Karthikeyan
- Dr Veerasahada J
- Dr G Chandrasekaran
- Dr Nagaraja H S
- Dr Pradeep A R
- Dr Navane S Kumar
- Dr M M B Sandeep
- Dr Srimanath B S
- Dr Vetri Ganapathy
- Dr Natana Sabapathy
- Dr B. Sathyamoorthy
- Dr N Arun
- Dr Manjunath
- Dr Anant Singh
- Dr Sivakumar
- Dr Vasudeva
- Dr Rathna Mohan Rao M
- Dr Sivakumar Mani
- Dr Seethal P
- Dr A. Thirumurugan

**Fellows**
- DR MGR University Fellows
  - Dr Navneet Kumar
  - Dr J. Kaviraj
  - Dr Pankaj P. Chakravarty
  - Dr Rajesh Kumar
  - Dr Siddharth Figi

- Trauma Fellows
  - Dr Kishore
  - Dr Praveen Reddy
  - Dr Anoop Ramakrishna
  - Dr Karthik
  - Dr Varun Kumar Sharma
  - Dr Dinesh

- FNB Spine Fellows
  - Dr Neeraj Gupta
  - Dr Om Prakash Narayan
  - Dr Suresh Subramani
  - Dr Siddharth Iyer
  - Dr Guruprasad Das
  - Dr Visha Krishnan
  - Dr Sreekanth Reddy Rapidi

- FNB Sports Medicine
  - Dr Ajay Singh

- FNB Arthroplasty Fellows
  - Dr Jayanta Kumar Badhwa
  - Dr Arvind C. K.

- FNB Trauma
  - Dr Senthil Ram Gaddam

- ASSI Spine Fellows
  - Dr Chandrasekaran Giclee
  - Dr Ajith Kumar

- DNB Post Graduates
  - Dr Pankaj
  - Dr Srikar Dhalal
  - Dr Manjunath
  - Dr Vinay Pawar
  - Dr Gower Shanks
  - Dr Kiran Chandras
  - Dr Rahul
  - Dr Nilukurian
  - Dr Santosh
  - Dr Vinay Bhat
  - Dr Runa Bhat Z
  - Dr Phanikumar
  - Dr Karunakar Reddy
  - Dr Vetri Cheivan S
  - Dr Praveen Kumar Khot
  - Dr Mohamed Shabere
  - Dr Harsha G N
  - Dr Srinivasa Kandula
  - Dr Kiran Kumar
  - Dr Avula Srinivasa Reddy
  - Dr Srikesh Ravi
  - Dr Manni Kumar Dhavadi
  - Dr T Sripasanth
  - Dr Srijad W D
  - Dr Jerin J Sudakkan
  - Dr Kamaatchiprabhu
  - Dr Joydeep Malik

**Research Co-ordinator**
- Dr. Janardhan S Yerramshetty

**Department Secretaries**
- Mr Mohana Krishna
- Mr G Prabhu
- Mr Raha

"If you want to walk fast, walk alone - If you want to walk far, walk together" - African Proverb
Prof. S. Rajasekaran

Academic:
- Chairman, Dept of Orthopaedic & Spine Surgery
- Adjunct Professor, The Tamilnadu Dr MGR Medical University.
- Hunterian Professor, Royal College of Surgeons of England, 2011 - 12

Professional Bodies:
- President-Elect, ISBICT
- Chair - International Research Commission, AOspine
- President Indian Orthopaedic Association
- Past President, Indian Orthopaedic Association, 2012
- Past President, International Society for the Study of Lumbar Spine (ISSLS), Canada, 2011 - 12
- Past President, Indian Orthopaedic Association, 2012
- Past President, Tamilnadu Orthopaedic Association, 2012

International Awards:
- Walter F. Blount Humanitarian Award, Scoliosis Research Society, USA - 2015
- ISSLS Spine Research Award 2012, 2010, 2004
- EuroSpine Open Paper Award 2008
- Honorary Fellowship, Royal College of Surgeons of England, 2019
- ISSLS Macnab La Rucca Award 2005, 2014
- Harvard Medical International Award, 2007

National Awards:
- Golden Jubilee Research Award IUA 2010
- MCI Silver Jubilee Research Award 2002
- Tamilnadu Government Scientist Award 2000
- ASIS Research Awards 2005,08,09,08,09,10,14
- ASIS Publication Award 2013,2014
- ASI Hari Om Ashram Alemic Research Award 2004

Textbooks
- Chief Editor, ASII Textbook of Spinal Infections & Trauma
- Chief Editor, Video Atlas of Spine Surgery

Journals
- European Spine Journal - Editorial Board Member.
- Spine - Deputy Editor.
- Journal of Bone and Joint Surgery(El) - Editorial Member.
- Journal of Orthopaedic Surgery, Hong Kong.

Dr. Rajasekaran has been instrumental in building and shaping the orthopaedic department into a very busy clinical unit with strong academic and research components. He has had a brilliant academic career and was the ‘Best outgoing student’ of Coimbatore Medical College and stood first in the University of Madras in the orthopaedic postgraduate examinations. He was awarded the Khazanifer Gold Medal and Norman Roberts Medal for best performance during his M.Ch exams in Liverpool, UK. He completed his Ph.D in 2000.

He has special interest in spine surgery, arthroplasty and clinical research in major trauma. He has led the unit’s basic science research in spinal deformities, disc nutrition and biology and genetics of disc degeneration which have been recognised with numerous awards and published in international journals. He was also instrumental in the evolution of ‘Ganga Hospital Open Injury Severity Score’ which guides critical decisions in saving and reconstructing severely injured limbs.

Dr. S. Rajasekaran

Mr, DNB, FR.C.S.(Ed), M.Ch(Liv), FA.C.S, FR.C.S(Eng), Ph.D, Chairman, Dept of Orthopaedic, Trauma & Spine Surgery.

Dr. N Rajkumar is a Consultant in Arthroplasty. He underwent advanced training in Arthroplasty and Traumatology at Flinders Medical Centre, Adelaide and Prince Charles Hospital, Brisbane, Australia. He has been awarded the Traveling Fellowship Award for the Japanese Orthopaedic Association Conference in Japan 2008. He has done AO basic and Advanced trauma courses along with cadaveric course in Complex Pelvic and Acetabular trauma. He was organizing secretary for Ganga Operative Arthroplasty Course in 2011, 2013 and has been involved in conducting many conferences.

Dr. J. Dheenadhayalan joined the department in 1992 after basic training at Mysore Medical College. He had his advanced training at Nuffield orthopaedic center and Milton Keynes general hospital UK, and fellowship training in joint replacement at Tubingen and Regensburg, Germany. A Founder member of the APOA trauma section and holds member position in AO Trauma and Shoulder society of India. He was the editor of Tamilnadu orthopaedic journal and assistant editor to Indian journal of orthopaedics. His field of interest is shoulder surgery and surgery in complex trauma situations.

Dr. Ajoy Prasad Shetty joined the department in 1994 and became a consultant in 2000. Initially trained in Orthopaedics at Bangalore Medical College, he had advanced training in Spine Surgery at The Queen Elizabeth Hospital, Adelaide, Australia. He was the Organising Secretary for the APOA Operative Spine Course in 2019. He is a regular faculty at AO Spine Courses and was awarded the ISSLS International Fellowship for the year 2007. He is also the co-author of the scientific papers which won the ISSLS Prize 2004, 2010, 2012 and EuroSpine Award 2008.

Dr. S.R. Sundararajn joined the department in 1989 and working as a Consultant in Arthroscopy, Sports Medicine and Special interest in foot and ankle. After finishing his post graduation training, he had advanced training in Flinders Medical Centre in Australia and also short term training at Arthroscopic Centres in France and Cape Town, South Africa. He is a regular faculty in National Arthroscopy and Foot and Ankle conferences. He had won the Best Paper Award in Indian Arthroscopy meetings of 2008 and 2013 and consultant medals in 2013 and 2014 of TNOA. He has organized INDO-US Foot and Ankle course in 2014 and IASM 2018. He was also involved in organizing Trauma conferences. Currently, he is a Vice President of Indian Association of Sports Medicines and General Council Member in Indian Arthroscopy Society and Joint Secretary in Indian and Foot Ankle Society.

Dr. P. Dhanaasekara Raja is a Consultant Joint replacement surgeon. After his basic training in orthopaedics he has completed Fellowships in Arthroplasty and Arthroscopy at Adelaide & Sydney, Australia and Hospital for Special Surgery, Newyork, USA and was the APOA Travelling Clinical Arthroplasty Fellow in 2010. He did his Diploma in Tissue banking from the National University of Singapore. He has done various clinical research works in joint replacement and has won various awards for the research presentations at various meetings. He has been an invited faculty at various meetings. He is the co-authors of various publications in peer reviewed journals and textbook chapter. His area of interest includes management of surgical arthritis of hip and knee (primary and revision total hip and knee replacements), trauma surgery and tissue banking.

Dr. N. Rajkumar is a Consultant in Arthroplasty surgery. The department has been involved in conducting many conferences.
Dr Rishi Kanna finished his graduation from the Madurai Medical College in 2002, where he was the best outgoing student with four gold medals. He pursued his post graduation from Post graduate Institute at Chandigarh. He was elected as a member of Royal College of Surgeons of Edinburgh in 2007. He completed the fellowship training in spine surgery at Ganga Hospital and advanced spine surgical fellowship at Nottingham, England. He has special interests in basic spine research and has won several awards both at the national and international level. He has several international publications and authored chapters in international orthopaedic textbooks.

Dr Venkatadas K joined the unit in 2006 after completing his MS Orthopaedics from the Manipal University. He has a passion for pediatric orthopedics and underwent short-term fellowships under Dr Ashok Johari, Mumbai and Dr Vishrut Madhur, CMC Vellore. He also successfully completed a fellowship in Limb Reconstruction Surgery under Dr MCR Medical University. He completed his Advanced fellowship in Paediatric and Adolescent Hip Disorders from the Rady Children’s Hospital, San Diego, USA. He won the Best Paper Award at FOSICON 2011 and Dr Joy Patankar Gold Medal at IOACON 2014. He is actively involved in research activities of the paediatric orthopaedic unit.

Dr Ramesh Perumal had his basic orthopaedic training at Kilpauk Medical College, Chennai in 2004 and completed his Diplomate National Board in Orthopaedics from Ganga hospital in 2006. He joined the unit as a registrar in 2007 and became a senior registrar from 2009 onwards. He won the PG quiz in 2005 state conference and also the clinical commitment award as the best outgoing student in DNB training period. He completed pelvi-acetabular and geriatric trauma in the University of Johannes-Gutenburg, Mainz, Germany and Medical University of Innsbruck, Austria in 2014. He received the BC Rallan Gold Medal for basic science research in IOACON 2013.

Dr Devendra Agraharam joined the department in 2005 as a Post graduate. He received Best Resident Award in 2005 and was awarded Prof M V Daniel Gold Medal for Excellence in Clinical Care in 2010 and Prof M Natarajan Gold Medal in TNOA 2006. He got trained in Bone banking at TATA Memorial hospital, Mumbai and NUS, Singapore and started Bone bank in Ganga hospital in 2008. He completed trauma fellowship in the Department of Trauma, Medical University of Innsbruck, Austria in 2011. He has received Prof A A Mehta Gold medal in IOACON 2013.

Dr. C. Arun Kamal completed his M.B.B.S., and M.S. Ortho from Govt. Kilpauk Medical College, Chennai in 2003 and 2008 respectively. He joined Ganga hospital as registrar in 2009 and completed Diplomate national board in orthopaedics in 2010 and became Associate consultant in trauma surgery in 2014. He completed masters course in trauma, organised by Indo-German orthopedic foundation at Chennai. He has presented papers at various state and national level conferences and also worked as scientific committee member in Ganga trauma conferences.

Dr. V. Rajeshbabu is a consultant Neurosurgeon and joined the institution in 2010. He completed his M.S. General Surgery in 1994 at Coimbatore Medical College and MCH Neuro surgery at Madrass Medical College, Chennai in 2001. He manages all major head injuries in our centre and he is also the project co-ordinator of the Neurological Society of Coimbatore. was organizing secretary for 64rd Annual National Conference of Neurological Society of India.

Dr Ashok Johari, Mumbai and Dr Vrisha Madhuri, CMC Vellore. He also successfully completed a fellowship in Limb Reconstruction Surgery under Dr MCR Medical University. He completed his Advanced fellowship in Paediatric and Adolescent Hip Disorders from the Rady Children’s Hospital, San Diego, USA. He won the Best Paper Award at FOSICON 2011 and Dr Joy Patankar Gold Medal at IOACON 2014. He is actively involved in research activities of the paediatric orthopaedic unit.

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Department of Neurosurgery

Dr. V. Rajeshbabu is a consultant Neurosurgeon and joined the institution in 2010. He completed his M.S. General Surgery in 1994 at Coimbatore Medical College and MCH Neuro surgery at Madrass Medical College,Chennai in 2001. He manages all major head injuries in our centre and he is also the project co-ordinator of the Neurological Society of Coimbatore. was organizing secretary for 64rd Annual National Conference of Neurological Society of India.

Department of Radiology

The department of radiology is highly specialized in diagnostic imaging of Musculoskeletal pathology performing more than 7100 MRI, 5000 CT and one lakh plain radiograph investigations every year. It is well equipped with a Magnetom Symphony 1.5 Tesla MRI, multislice CT scan and five digital plain radiograph machines. Radiology services are available round the clock to provide expert care at all times of the day. Apart from the busy clinical load, the department is also closely associated with the orthopaedic department in performing research in advanced imaging techniques of the spine.

Dr Anupama NV heads the Department. She completed her DNB in radiodiagnosis from Apollo Hospital, Chennai and subsequently qualified as a Fellow of the Royal College of Radiology, UK. She is involved in research on imaging of spinal trauma and DIT of the spinal cord. Dr Kumar, DNB and Dr Prakash, DNB form the other members of the team.

Blood Bank & laboratory

We have one of the most sophisticated laboratories to process various clinical biochemistry, clinical pathology, serology, immunosassay, haematology and microbiology samples. To achieve the highest standards in maintaining quality, we have enrolled ourselves in various Internationally acclaimed EXTERNAL QUALITY and INTERNAL QUALITY ASSURANCE PROGRAMMES.

Blood banking services is committed to provide blood and its components complying with all required regulations and standards. Most of the blood is collected from regular, voluntary blood donors. To ensure safety and quality we use an advanced state of the art equipment ARCHITECT i1000sr for screening the blood donors. This technology can reduce the window period risk of transmission of infections considerably. We are issuing approximately 1000-1200 units of blood and its components every month. We are the first in Coimbatore District to start a blood storage centre and function as a regional blood bank centre.

Blood donation in progress.

Labordary services.
The Department of Anaesthesia is well equipped for safe perioperative care. The department has on its rolls 28 full time anaesthesiologists and 12 trainee anaesthesiologists, who offer round the clock services. They serve as perioperative physicians and offer comprehensive perioperative care. The focus is on Acute pain Service which aids in early rehabilitation and well being of the surgical patients. The department specialises in advanced Regional Anaesthesia, Anaesthetic solutions to major reconstructive spine surgeries and Arthroplasties, Geriatric Anaesthesia, Paediatric Anaesthesia and anaesthesia for major polytrauma victims. The department offers postgraduate training in Anaesthesia, Fellowships in Nerve block and pain management, Regional Anaesthesia and Trauma Anaesthesia.

**Consultants**

**Dr. C Sekar** joined the institution as a Consultant in 1995. His special interest is in anaesthesia for spine surgery and Ultrasound-guided nerve blocks. He has been an invited faculty for the Oman Medical University Conference for the past two years. He materialized the training initiative at our hospital for the anaesthesia Students from Oman in collaboration with The Oman Medical Speciality Board. He was be the President of City Branch of ISA, Coimbatore Chapter in 2014-12. He has delivered 6 lectures nationally and 2 lectures internationally and has been a faculty in 18 live workshops.

**Dr. J. Balavenkatasubramanian** joined the institution as a Consultant in 1995. He is the founder President of Academy of Regional Anaesthesia of India and the current National Chairman, Editorial Board Member of Indian Journal of Anaesthesia and Journal of Research Society of Anaesthesia and Clinical Pharmacology, National Executive Committee Member of International Trauma Care, Indian Chapter Certfied National Faculty for Comprehensive Trauma Life Support, Course Director for the Aesculap Academy Guidance Centre for Regional Anaesthesia, Academic Director for the postdoctoral fellowship in nerve block and pain management, Course director for the WFSA Ganga Hospital Regional Anaesthesia Fellowship. He has so far delivered 284 lectures nationally and 47 internationally and has been a faculty in 18 live workshops. Invited faculty for the World Congress of Anaesthesia 2008 in South Africa, 2012 in Argentina and World Congress of Regional Anaesthesia in 2014 in South Africa.

**Dr. R. Manikandan**, Consultant Anaesthesiologist at Ganga Hospital joined in Aug 2008. He did his MD Anesthesiology (2003-2005) and senior residency (2005-2008) from the All India Institute of Medical Sciences, Delhi. He did a fellowship in Chronic pain management from the University of Western Ontario, Canada in 2010-2011. Has presented papers in the American Society of Anaesthesiologists annual meetings in 2008 and 2014 in Orlando and San Diego respectively. He has special interest in Pediatric Anaesthesia & pain management.

**Dr. P. Gurumoorthi**, consultant in the department of anaesthesiology joined the unit in 2008. His areas of interest are anaesthesia for patients with cardiovascular diseases and USG guided regional anaesthesia. He also has a keen interest in Paediatric regional anaesthesia.

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**Anaesthesia Courses Offered**

- Diplomate of National Board in Anesthesia (4 seats per year) Session starts in January.
- Post Doctoral Fellowship in Nerve block and Pain management
- Affiliated to Dr MGR medical University (2 seats per year) Session starts in July.
- Ganga Hospital Fellowship in Regional Anaesthesia & Trauma (6 months) Session starts in January/ July
- WFSA Ganga Hospital Regional Anaesthesia International Fellowship for anaesthesiologists from Low Resource countries (4 seats per year). Session starts in January/July every year (6 months fellowship)
- Aesculap Academy, Germany and Ganga Hospital AAGC Training Programme (6 days)

**The Various Anaesthesia Techniques Performed 2012-14**

<table>
<thead>
<tr>
<th>Techniques</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spinal</td>
<td>7493</td>
<td>8083</td>
</tr>
<tr>
<td>Ga</td>
<td>760</td>
<td>1485</td>
</tr>
<tr>
<td>Nerve Block</td>
<td>1991</td>
<td>2595</td>
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<tr>
<td>Tap Block</td>
<td>3426</td>
<td>4643</td>
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<tr>
<td>Epidural Steroid</td>
<td>270</td>
<td>290</td>
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<tr>
<td>Miscellaneous</td>
<td>84</td>
<td>108</td>
</tr>
<tr>
<td>Caudal</td>
<td>63</td>
<td>89</td>
</tr>
<tr>
<td>Local</td>
<td>33</td>
<td>94</td>
</tr>
<tr>
<td>Total</td>
<td>14151</td>
<td>17447</td>
</tr>
</tbody>
</table>

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**Anaesthesia Team**

(Left to Right Sitting)  Dr Sateesh, Dr Manikandan, Dr C Sekar, Dr J Balavenkata, Dr Vipin, Dr Raja, Dr Vikram, Dr Aparna, Dr Bhairavi, Dr Sandeep, Dr Shikha, Dr Arun, Dr Sweety, Dr Chirag, Dr Prasanth, Dr Arun, Dr Santosh, Dr Santosh, Dr Benthil, Dr Vikram, Dr Karthik, Dr Prasad, Dr Phakhakar

(Standing) Dr Maheshwari, Dr Raja, Dr Vipin, Dr Ropa, Dr Vikram, Dr Aparna, Dr Bhairavi, Dr Sandeep, Dr Shikha, Dr Arun, Dr Sweety, Dr Chirag, Dr Prasanth, Dr Arun, Dr Santosh, Dr Santosh, Dr Benthil, Dr Vikram, Dr Karthik, Dr Prasad, Dr Phakhakar
The hospital has 20 operating theatres which are staffed with 223 highly skilled OT nurses, Anaesthesia technicians and theatre technicians. They are responsible for the maintenance of NABH standards in the theatres and are closely involved in the academic and operative courses of the department.

The department has 30 physiotherapists who work closely with the surgeons. Apart from providing service to nearly 300 in-patients and 150 outpatients a day, the team also provides training to students from many colleges. The department is well equipped with all the latest therapeutic modalities.

The research department has thirteen physician assistants who are actively involved in the collection of data and clinical evaluation. The team of physician assistants have completed a four-year Basic course and form an integral part of the research work.

The hospital has a spacious conference center located on the sixth floor. It includes an auditorium with a seating capacity of 420 people, two meeting rooms that can seat 150 people each, a pre-conference lobby that can hold trade exhibits and a food court. This makes it the largest conference facility available in the city at present. The main auditorium allows audio visual transmission from all the major operating theaters for live surgery workshops.

Dr. Janardhan S. Yerramshetty, Research Coordinator - joined the Ganga Hospital in 2011 as Research Coordinator. He did his bachelor's in biomedical engineering at Osmania University, Hyderabad and later Ph.D. in bioengineering at the University of Toledo, Ohio, US. Even though his background is mainly engineering, he is connected to medical field through his research work at his Ph.D., and post-doc institutes (Henry Ford Hospital, Detroit, Michigan). A portion of his Ph.D. thesis is printed as a book chapter through Springer publications.

Mr. Mohana Krishnan, Mr. G Prabhu, Mr. Balakrishnan & Mrs. Radha, support the department in all its academic, research and clinical activities.

Dr. P K Krishnananda, Medical Administrative Officer and Dr. Ishwar Balaji, Patient Relation Officer, ably attend to the administrative needs of the institution. Dr. Krishnananda has 13 years clinical experience in critical care and cardiac surgery and then moved on to hospital administration with an MBA in 2010 and PGDCR. Dr. Ishwar Balaji has 12 years in clinical experience as a dental surgeon before moving on to hospital administration. Both together have successfully implemented the practice of core values of the institution at all levels of staff members and have been responsible for maintaining high quality of service as per the NABH guidelines.
With more than 150,000 new out-patients and 20,000 major surgeries every year, the unit stands as a leader in the field of orthopaedic surgery in this part of the world. High quality trauma care is ensured by a healthy symbiosis and collaboration between the orthopaedic, plastic, anaesthetic, neuro and facio-maxillary surgery departments.

The high clinical load is well supported by excellent infrastructure facilities with 486 beds, 20 operating theatres, state-of-the-art radiology department with in-house MRI and CT scan facilities. The operating theatres have AIRO CT navigation. Computer navigation surgery platforms, 2D ISO-C 3D C-arms, Spinal cord neuro-monitoring, high end operative microscopes and state-of-the-art operative equipments all of which help to ensure the best possible results to the patients.

### New Elective Out-Patient Registration

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<tr>
<th>Year</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
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<tbody>
<tr>
<td></td>
<td>1,54,790</td>
<td>1,62,289</td>
<td>1,89,529</td>
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### Emergency casualty attendence

<table>
<thead>
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<th>2013</th>
<th>2014</th>
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<tbody>
<tr>
<td></td>
<td>23,516</td>
<td>20,585</td>
<td>21503</td>
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### Major Orthopaedic Surgeries

<table>
<thead>
<tr>
<th>Year</th>
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<th>2013</th>
<th>2014</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>20,510</td>
<td>20,679</td>
<td>21,782</td>
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### Orthopaedic Physiotherapy patients

<table>
<thead>
<tr>
<th>Year</th>
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<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>33,814</td>
<td>37,481</td>
<td>42,138</td>
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