



ASSOCIATION OF SPINE SURGEONS OF INDIA

ASSI NEWSLETTER, JULY 2019

FROM THE PRESIDENT'S DESK

"Let's rise up together to the challenge posed by spinal ailments"

Dear Colleagues,

I am using this opportunity to request all members of ASSI to join hands and pool all resources in order to alleviate the sufferings of people with spinal ailments.

Since the time of its inception, ASSI has shown tremendous growth and has been working diligently under the leadership of dynamic Presidents as well as other officials to bridge the gap in the management of spinal ailments. Scientific and educational activities include national, regional and local conferences, instructional courses, symposia, CMEs and workshops. ASSI has been implementing two year fellowship programs in centers across India. ASSI also conducts outreach programs across the country and has come out with its journal, textbook as well as monographs. The Society has been a strong propagator of research and has launched research grant awards, established a Spine Registry and a mobile application based case discussion forum. It has also been working with other Societies to create awareness about prevention of spinal ailments, for strengthening the Injury Prevention program and to lobby for control of unethical practices pertaining to stem cell / cellular transplantation.

However, you will all agree that there is so much more to be achieved in order to bridge the gap between "what is possible" or "needed" and that "actually available". As the National Society working in the field of spinal ailments, it becomes our mandate as well as moral responsibility to do everything possible within our resources to improve the plight of people with spinal ailments.

We will definitely and successfully rise up together to the challenge posed by spinal ailments.

Dr. HS Chhabra | President - ASSI | president.assi@isiconline.org





FROM THE SECRETARY'S DESK

It has been my privilege and honor to be the Secretary of one of the largest global spine associations. I take this opportunity to thank the outgoing Secretary Dr. Saumyajit Basu and the past President Dr. Raghava Dutt Mulukutla for their dedication and tenacious efforts they have put over the last two years. I also look forward to work relentlessly with the strong leadership of President Dr. H.S. Chhabra, Vice President Dr. Shankar Acharya and Joint Secretary Dr. Gautam Zaveri.

Under the judicious stewardship of our past office bearers and senior dynamic leaders, ASSI has grown up today to a fully mature organization. This has been possible largely due to wholehearted and collective contribution of our members. Having a supreme vision for our future is an important element of our life. But one must understand delivering many small tasks that make up each day is the shortest way to reach that vision. The Spine Outreach program, Indian Spine Journal, ASSI monographs have certainly been the most successful projects of ASSI and we will make sure that these activities are being continued paving the way for our larger vision of ASSI becoming an enviable global scientific body with international standards.

Having taken charge I am taking steps to reinforce and accelerate the active projects. I am sure that we will be implementing the various projects as proposed by our President in a steady pace and seek your active participation and cooperation for executing them. As the ASSI Secretary, I should emphasize that I enthusiastically look forward to meeting and interacting with you in every occasion of ASSI organized meetings or courses. Ultimately, your contributions, suggestions, and feed backs are of utmost importance for the advancement of ASSI to further higher-levels.

I would like to convey my sincere gratitude to all of you for imposing faith in me and for giving me the opportunity to be actively involved with this dynamic association. I am sure that together, we will continue to reach greater heights and contribute actively to the community. Also, it shall remain our endeavor to keep the members updated on knowledge in Spine surgery to excel in the profession.

Look forward to meeting you in ICS 2019.

Dr. Ajoy Shetty | Secretary-ASSI

CONTENT

04-10

Progress Report on Implementation of ASSI Strategic Plan

- a. E-learnspine.org – an Educational Web-resource for Spine Professionals and Consumers
- b. Capacity development and creating excellence in spine surgery in deserving centers of India
- c. Multicentric Research Study
- d. Resolving issues pertaining to spine surgery practice

11-16

Non-academic Articles

- Current Scope of 3d Printing in Spine
- Non Scientific advertisements and propaganda against spine surgery

17

Updated List of ASSI Executive and Co-opted members

18-25

Re-constituted List of Various ASSI Committees and Task Forces

26-29

Reports of ASSI Committees

- a. Program Committee
- b. Research Committee
- c. Website Committee

29-30

Reports of ASSI Task Forces

- a. ASSI Spine Outreach
- b. ASSI Case Discussion Forum

30-31

ICS 2019

32

ASSICON 2020

33-34

Awards/achievements/prestigious Positions of ASSI Members

PROGRESS REPORT ON IMPLEMENTATION OF ASSI STRATEGIC PLAN

DR. HS CHHABRA

The operational plan of 2019 includes implementing the following components of the Strategic Plan:



ASSI Strategic Plan 2019-2024 came into force from 26th January 2019 when the ASSI GBM adopted it. You can go through the Strategic Plan by clicking on <http://assi.in/pdf/ASSI-strategic-plan.pdf> or on www.assi.in

■ Development of Educational Materials

Elearnspine.org

■ Training and Service Development

Capacity development and creating excellence in spine surgery in deserving centers of India

■ Research

Multicentric Research

■ Streamlining Activities & Organizational Structure

■ Advocacy

To focus on

- Resolving issues pertaining to spine surgery practice
- Awareness pertaining to spinal ailments
- Injury Prevention Program

PROGRESS REPORT ON IMPLEMENTATION OF ASSI STRATEGIC PLAN

01 e-learnspine.org - an Educational Web-resource for Spine Professionals and Consumers

Background

ASSI plans to come out with elearnspine.org. It will be more or less on lines of elearnsoci.org. It will have a version for experts and another for consumers. The aim of this project is to develop a web-based teaching and educational resource which will up-skill and educate those responsible for patient management and which will ultimately lead to improvements in the care and management of people with Spinal ailments around the world.

This project will:

- Support the development of content for the educational resource and web based learning modules
- Support the development of the website and interface for the e-learning resource
- Enable roll out, implementation and monitoring of the e-learning resource

Grapes Digital Pvt. Ltd. has been selected to implement the project. This company has implemented a similar project elearnsoci.org.

Modules and content

The comprehensive e-learning resource will comprise 10 professional and 7 consumers modules as under:

Professionals Modules

Module 1: Basic Sciences

Module 2: Degenerative Disorders of Cervical Spine & Submodules

Module 3: Degenerative Disorders of the Thoraco-Lumbar Spine & Submodules

Module 4: Deformities in Adults and Spondylolisthesis & Submodules

Module 5: Deformity and Malformation in Children and Adolescents & Submodules

Module 6: Spinal Trauma and Fractures & Submodules

Module 7: Spinal Tumours & Submodules

Module 8: Infection, Inflammation and Metabolic Disease & Submodules

Module 9: Complications and Revisions & Submodules

Module 10: Surgical steps and Video Library & Submodules

Consumers Modules



1. Know your spine
2. Back pain
 - Spinal Causes
 - Non Spinal Causes
3. Leg pain (sciatica)
 - Spinal Causes
 - Non Spinal Causes
4. Neck pain
 - Spinal Causes
 - Non Spinal Causes
5. Prevention & general health
6. Non-surgical treatments
7. Know your 'healers'
8. Pain procedures
9. Surgical treatments

The lists of submodules for each Module have also been finalized. An Editorial Committee has been constituted. Sponsors are also being finalized.

Content development

Sub-committees are being formed comprising of content experts within each module/sub-module. Each sub-committee will need to:

- ▶ Define learning objectives and expected outcomes for module/ sub-module
- ▶ Develop a presentation to provide an overview of the sub-module
- ▶ Develop a range of activity based learning scenarios and exercises utilising case studies, voice overlay, open-ended questions, quizzes, drop and drag activities, video and pictures as and where appropriate
- ▶ Develop a 10 minute activity based learning to test users' knowledge at the end of each sub-module
- ▶ Compile frequently asked questions and another section of around 5 slides on busting myths about spine
- ▶ Devise a reference list for further reading and related information (ideally available through an online link)

It is planned to launch the first phase of elearnspine.org during next ASSICON at SpineWeek 2020 at Melbourne from 27th April to 1st May 2020.

We look forward to a whole hearted contribution of members for the success of this initiative.

PROGRESS REPORT ON IMPLEMENTATION OF ASSI STRATEGIC PLAN

02 Capacity development and creating excellence in spine surgery in deserving centers of India

The capacity development program would involve –

- On the job training of at least 2 professionals of each center by ASSI experts
- Workshop / symposiums at the Centers by ASSI experts
- Facilitating participation of the designated professionals of each center in ASSICON/ICS/any other relevant event of the Society
- Training of at least 2 professionals at ASSI recommended center
- On-going support for plan of care of patients visiting the centers

Eligibility criteria

Centres should preferably have:

- Spine / Orthopaedic / Neurosurgery department with minimum 2 surgeons working in it
- OPD clinics in orthopaedics/neurosurgery
- An Operation theatre which meets all basic needs pertaining to Spine surgery
- A good anesthesia team back-up with post-op ICU care
- At least 20-30 spine surgeries per month
- CT/MRI
- Ongoing academic and research programs

Gujarat Adani Institute of Medical Sciences (GAIMS) and People's Superspeciality Hospital, Bhopal has applied for consideration for this program. An advertisement is also being given in Indian Journal of Orthopaedics in the June issue.

Dr. Bharat Dave and Dr. Gautam Zaveri have inspected GAIMS on 8th June and have put up a report to the Executive.

PROGRESS REPORT ON IMPLEMENTATION OF ASSI STRATEGIC PLAN

03 Multicentric Research Study

6 topics for Multicentric Research have been shortlisted with coordinators and research Questions as mentioned below:

Chapter	Coordinator	Topics	Participating centers
Deformity	Dr. Bhavuk Garg	Cervical sagittal alignment changes following deformity correction in Lenke 1 AIS patients.	Mallika Spine Centre, Guntur Ganga Hospital, Coimbatore AIIMS, New Delhi Indian Spinal Injuries Centre, New Delhi Primus Hospital, New Delhi Bhagwan Mahaveer Jain Hospital, Bengaluru Chirayu Fracture Orthopaedic And Spine Hospital, Ahmadabad KIMS hospital, Trivandrum
Trauma	Dr. Tarun Suri	Correlation of MRI assessment and intraoperative assessment of PLC injury in thoracolumbar trauma: Does MRI overpredict amount of PLC injury?	1. Indian Spinal Injury Centre, New Delhi. 2. Ganga Hospital, Coimbatore. 3. Park Clinic and Kothari Medical Centre, Kolkata. 4. Sir Gangaram Hospital, Delhi. 5. AIIMS Trauma Centre, New Delhi. 6. Stavva Institute, Ahmedabad.
Degenerative	Dr. Janaradan Aithala	Comparison of neurological recovery following discectomy/decompression in patients who had neurological deficits less than 6 weeks and more than 6 weeks	Yenepoya Medical College, Mangalore Ganga Hospital, Coimbatore Dr. Naresh Babu, Mallika Medical centre, Guntur Dr. Arvind Kulkarni, Bombay Hospital, Mumbai Dr. Soumyajit Basu, Park Clinic, Kolkata Indian Spinal Injuries Centre, New Delhi

MIS	Dr. Arvind Kulkarni	<p>1. A prospective study to be conducted comparing the outcomes (VAS, ODI, Macnab criteria, return to work, need for analgesia, complications in 2 years etc. of Discectomy using various MIS techniques</p> <p>2. Retrospective study - complications in the last 5 years with various techniques - wrong level, wound related complications, discitis, dural tears, neurodeficit, medical complications etc.</p>	<p>Yenepoya Medical College, Mangalore Ganga Hospital, Coimbatore Dr. Naresh Babu, Mallika Medical Centre, Guntur Dr. Arvind Kulkarni, Bombay Hospital, Mumbai Dr. Soumyajit Basu, Park Clinic, Kolkata Indian Spinal Injuries Centre, New Delhi</p>
Infection	Dr. Naresh Babu	Correlation of MRI changes and clinical behaviour of Tuberculous spondylodiscitis patients in the early phase of chemotherapy.	<p>Mallika Spine Centre, Guntur Ganga Hospital, Coimbatore AIIMS, New Delhi Indian Spinal Injuries centre, New Delhi Ganga Ram Hospital, New Delhi Sancheti Hospital, Pune CMC, Vellore Yenapoya Medical College, Mangalore</p>
Tumors	Dr. H.S Chhabra	Role of PET in the management of secondaries in Spine	<p>1. Indian Spinal Injuries Center (ISIC): Dr. H.S Chhabra (Principle Investigator) 2. AIIMS: Dr. Bhavuk Garg (Co-Investigator) 3. Sir Ganga Ram Hospital: Dr. Shankar (Co-Investigator) 4. UCMS: Dr. Manish Chhadha (Co-Investigator) 5. Rajiv Gandhi cancer hospital: Dr. Manish Pruthi (Co-Investigator) 6. Tata Memorial Hospital: Dr. Aashish Gulia (Co-Investigator) 7. Ganga Hospital: Dr. Ajoy (Co-Investigator)</p>

The centers are being finalised by the coordinators in consultation with the Executive and Research Committee.

The outcomes would be presented in a 1 hour session during ASSICON at SpineWeek 2020 at Melbourne.

PROGRESS REPORT ON IMPLEMENTATION OF ASSI STRATEGIC PLAN

Resolving issues pertaining to spine surgery practice

The following issues are being pursued:

1. Issuing an official notification with regard to *"Eligibility of orthopedic surgeon to perform spine surgery"*

- a. met with Dr. Vinod Paul and handed over a letter.
We are following it up with his office.

2. *"Discrepancies in the CGHS/Ayushman Bharat rates for spine surgeries as applicable for orthopedic surgeon vis-à-vis neurosurgeon"*

- a. Letter has been given to the concerned in the two offices
and the matter is being pursued.

3. Management of spinal ailments to be included appropriately in the curriculum of post-graduation in orthopedic surgery and all relevant training programs

- a. A letter has been handed over to Dr. Vinod Paul in a meeting with him.

4. Unethical practice in offering Stem cell transplantation as a therapy

- a. A representation signed by Association of Spine Surgeons of India (ASSI), Indian Orthopaedic Association (IOA), Spinal Cord Society (SCS), Indian Head Injury Foundation (IHF), The Spine Foundation & Nina Foundation societies was sent to Dr. Vinod Paul, Chairman MCI and Member, NITI Aayog. The MCI office had forwarded the letter to ICMR for needful action. A meeting was held with Dr. Balram Bhargava, DG ICMR. He has answered that action would be taken in this regard.

NON-ACADEMIC ARTICLES

Non Scientific advertisements and propaganda against spine surgery

Dr. Dhiraj Sonawane 1, Dr. Ajaybir Singh 2, D.r Shrawan Singh 3, Dr. Habung Chobin 3, Dr. Kishor Jadhav 3.

1. Associate Professor & Head of Unit Orthopaedic& Spine

2. Spine Fellow

3. Resident

Grant Medical College & Sir JJ & GT Government Hospital, Mumbai, India.

Medical science has revolutionized human health care and improved quality of life. However, this evidence-based medicine is an imperfect science as it does not guarantee cure but can give approximate outcome in percentage. Also, it is not free from complications. Spine disorders are affecting the majority of the population from pediatric to old age group worldwide. Current lifestyles, increase in road traffic casualties have aggravated the spine related morbidities & mortality. The cost of managing spinal disorders/surgeries have risen exponentially in recent years. To profit from such patients these days non-specialist, unscientific groups have come up with unethical methods and treatments with unrealistic promises at a lower cost in the Indian scenario.

In spite of advancements in spine surgery which have made it safe, minimally invasive with reduced complication rate, the awareness in population has not increased alongside. Due to a lack of proper health education, the fear of spine surgery is persistent in population and still considered a phobia. This social mindset has been taken as an advantage by unprofessional to propagate their false agenda.

A person who does not have knowledge of a particular system of medicine but practices in that system is a quack and mere pretender to the medical knowledge or skill.

In the Indian scenario, an unqualified person like quacks, babasand bone-setters have been attending spine-related disorders of which they have no scientific knowledge.

The professionals like anesthetists, physiotherapists, radiologists have recently started primarily treating spine patients without a referral from spine specialists and sometimes offering treatment out of spectrum of their skill. Controversy exists regarding the independent therapeutic management of these patients by above professions.

The propaganda advertised by such self-claimed spine specialists are very aggressive and lucrative these days. Their advertisements promise guaranteed safe, non-invasive treatments, and magical results even to incurable spine diseases all misleading the general population. They are advertising on a mass scale via social media, TV, newspapers, pamphlets, public relation officers. This misinformation is also spreading fast through public hear-say. Famous Celebrities are advertising for these unrightfully treatments which is infusing misinformation into people's mindset.

Medical science is imperfect in many ways, with a lot of lacunae and grey zones, the research and advances in this field are bringing us closure to perfect management of many illness. For a patients e.g prolapse disc causing radiculopathy since 2 months with repeat episode, many approaches are possible from conservative, blocks, endoscopy discectomy, tubular discectomy, microdiscectomy, laminectomy and discectomy etc.

Physiotherapists are rehabilitation professionals who only used to manage referred patients from doctors. These days corporate-managed physiotherapy centers claiming to be spine specialist are aggressively advertising and directly providing primary spine treatment.

They advertise on social media, newspaper, websites where they claimed to have prevented thousands of patients from undergoing spine surgery. Till now they have been unchecked in infusing fear among the population & are successfully selling their therapy on a wide scale. I agree with many spine illnesses like listhesis, degenerative disc disease, prolapse disc can be managed with physical therapy alone.

But claiming numbers of spine surgeries avoided by them is gross misinformation and creates anger, negative image against the spine specialist offering surgeries. No one advertises,

How many of their patients require surgery in the future?

How many of them have not improved, worsen during and after such therapy?

So shall the spine surgeons start doing similar kind of advertisement by presenting these worsened patients as examples like,

I was advised spine surgery for disc prolapse, but took physical therapy against doctor's advice by seeing an advertisement. Now I have developed paralysis of the foot? Or

My back pain worsened after I visite spine clinic?

Advertising in for Stem cell therapy & malpractice in charging for experimental therapy!

Recently ASSI too had given statement mentioning it as unauthorized and urgent need to warn. As per ICMR guidelines experimental therapy cannot be charged or claimed to be treatment options. Patients & relatives are knowingly unknowingly still ready to spend on stem cell therapy in spinal cord injuries as they are left with no other choice in cases with irreversible damage to the spinal cord. It's natural that patient's relatives want to take every try which might help to improve the paralysis which is alright. But charging and flaming stem cell as therapy in improving the neurology is gross malpractice. Many such centers are marketing on websites with examples of clinical improvement after stem cell therapy.

We have restrictions to the advertisement from our side according to Drugs and Magic Remedies (Objectionable Advertisements) Act 1954 and MCI Code of ethics regulation 2002. Media is the most effective way to public awareness, to which a doctor has very restricted access, but these quacks & unprofessionals are free in propagating themselves. No major action seems to be taken for these advertisements from any authority. Even the Government National Health Scheme advertisements outshined by lucrative quack advertisements. In spite of this we have failed to take proper action on them which is another drawback on our side.

Most professionals are mostly confined to interact with patients on the individual level but baba's and quacks cater, influence, give speeches to people in mass populations. It's upon us to spread the right word on public forum on a large scale.

Doctor's associations need to be united to fight this growing challenge of malpractice and misinformation. As an organisation we should approach government authorities to keepa watchful eye through a regulatory body on such advertisements that spread incorrect information.

Being true to our commitment to providethe best possible health care, together we should act as a catalyst to erase spine-related misinformation form the public's mindset.



CURRENT SCOPE OF 3D PRINTING IN SPINE

Dr. Jitesh Manghwani, Dr. Abhishek Kashap and Dr. Lalit Maini, Maulana Azad medical college and associated LNJP hospital.

The developments in the past decade in bioengineering and biotechnology have lead to innovation of three dimensional printing (3DP). Currently in India, 3DP is being used for complex trauma, pelvi acetabular surgeries, maxillo-facial surgeries and in spine. However the use in spine surgery is pre mature and is constantly evolving over time. It helps in understanding of the anatomy as it opens another dimension for visualization and tactile feedback which is not possible with traditional computed tomography (CT) or Magnetic resonance imaging (MRI)

TECHNIQUE:

3DP creates physical models using 3D computer representations. When used for the first time by Charles Hulk, he called it sterolithography, the principles of which remain the same even today. 3D printer uses CT/MRI images to recreate the slices with the chosen material which are fused.

The different techniques of printing are Fused deposition modeling (FDM), Selective laser sinerting (SLS), Sterolithography (SLA) or DLP. FDM is faster and more economical. SLS and SLA are more accurate and allow using of materials which are autoclavable.

	FDM	SLS	SLA/DLP
Features	Low cost prototyping	Used for prototyping or small batch productions	Visual applications where smooth surface finish with higher levels of feature details are required
Advantages	Low cost Fast turnaround times	No support material required Excellent mechanical properties Complex geometries	Fine features wither higher details Smooth injection like surface finish
Dis-advantages	Limited dimensional accuracy Print layers likely to be visible	Higher cost than FDM Longer lead time than FDM	Support marks may be visible It is brittle and hence not recommended for functional parts
Technology	Filament	High Power Laser	UV Resin

Commonly used materials are nylon, stainless steel, polymers, resins, hydroxyapatite, porous ceramic, titanium or composites. Phosphate and strontium scaffolds allowing neovascularisation and osteoblast proliferation have been developed as well.

STEPS OF 3D PRINTING:

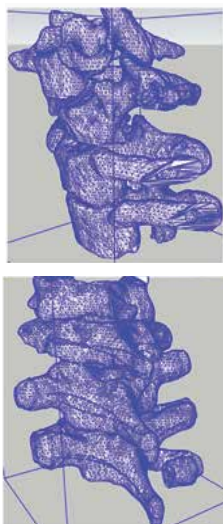


Figure 1)
STL file of cervical vertebra

The routine CT/MRI images from radiology are acquired and segmented. These segmented images are subjected to volumetric reconstruction to make geometric models. These models can be subjected to STL interface or CAD interface. STL interface works on the surface to decimate, smoothen and refine. This makes the prototypes which are used for virtual surgical planning. These models are used by orthopaedic surgeons and engineers.

If subjected to MedCAD interfacing system, the contour of models is covered by proline fits. The software then superimposes B spline curves on the polylines. This data with B spline curves is converted to CAD data format which creates CAD models. These CAD models are subjected to STL conversion and fabrication. The models acquired are subjected to finishing, sterilization and can be used for surgery.

Some softwares required for 3DP are available for no additional costs but have limited features. However the better ones with wide range of features are paid. This includes registered versions of OsiriX 10.0, AutoCAD 2019, MedCAD, Blender, Cinema 4D. This 3DP requires association with engineers and at our institute Maulana Azad Medical College and associated LNJP hospital we work in association with IIT, New Delhi. We 3D print pedicular screws and jigs for planning of osteotomies in spine surgery.

SPINE SURGERY:

The routine CT/MRI images from radiology are acquired and segmented. These segmented images are subjected to volumetric reconstruction to make geometric models. These models can be subjected to STL interface or CAD interface. STL interface works on the surface to decimate, smoothen and refine. This makes the prototypes which are used for virtual surgical planning. These models are used by orthopaedic surgeons and engineers.

If subjected to MedCAD interfacing system, the contour of models is covered by proline fits. The software then superimposes B spline curves on the polylines. This data with B spline curves is converted to CAD data format which creates CAD models. These CAD models are subjected to STL conversion and fabrication. The models acquired are subjected to finishing, sterilization and can be used for surgery.

Some softwares required for 3DP are available for no additional costs but have limited features. However the better ones with wide range of features are paid. This includes registered versions of OsiriX 10.0, AutoCAD 2019, MedCAD, Blender, Cinema 4D. This 3DP requires association with engineers and at our institute Maulana Azad Medical College and associated LNJP hospital we work in association with IIT, New Delhi. We 3D print pedicular screws and jigs for planning of osteotomies in spine surgery.

Figure 2) 3D printed jig after uniting the sub parts



JIG HAS BEEN UNITED AND WRAPPED TO MAKE IT A SINGLE UNIT AND CYLINDER HAS BEEN CANNULATED WITH 1.7MM DIAMETER TO PASS 1MM K WIRE AND MAKE THE TRANJECTORY OF DESIRED AND PLANNED PATHWAY OF SCREW



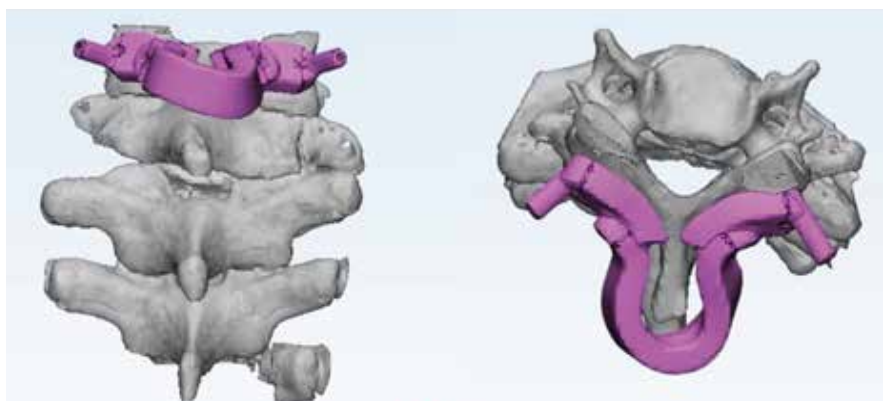


Figure 3) Final jig made and placed over cervical spine model, confirming the placement when viewed from different angles

The risk of iatrogenic damage in cases of pediatric spine and with severe degrees of kyphotic spine is higher. It is used to study the size and inclination of the screws that are to be used. 3DP is being used to create customized implants specially in cases of tumors affecting the spine.

Figure 4) Models created at our institute



THIS VIRTUAL JIG AND
CERVICAL SPINE MODEL
HAS BEEN PRINTED BY A
FDM 3D PRINTER



MODEL OF JIG
ATTACHED TO MODEL
OF CERVICAL SPINE AND
K WIRE IS PASSED
THROUGH THE CREATED
HOLE



Taking technology one step ahead using 3DP is bio-printing. Thenoval cases for which it has been used include 3D printed vertebral body replacement in cervical spine, 3D printed intervertebral discs have to replicate the viscoelastic properties of discs. Dong J et al successfully tested a unique drug delivery system in Kochs spine. They created a scaffold using a combination of anti tubercular drugs with poly DL lactide and nano hydroxyapatite and implanted in spine. However, this technology is not yet available in India.

3DP VS NAVIGATION:

It may be argued the use of navigation system in such cases. However the navigation system is way more expensive, difficult to maintain, the learning curve is steep. Compared to it 3DP is cheaper, more accurate and gives tactile feedback. The navigation technology lacks in real time feedback as the sensor recordings are not dynamic. For this drawback, navigation is being combined with robotics which increases the cost proportionately higher. There is no such lack in of real time feedback with 3DP. The other major advantages are reduced intra operative time, ease of use and no radiation exposure.

DISADVANTAGES:

There is a lag period involved. Time required to create a model ranges from 10-20 hours. However in standard cases it saves time intra operatively which is unparalleled to time taken to build the models.

The additional costs required for the printing models are not covered in insurance on which major population relies.

The learning curve is steep and involves association with engineers.

We hope a better understanding and related work in 3DP will reduce the apprehension regarding this technology.

ASSI EXECUTIVE FOR THE YEAR 2019

Past President

Dr. P K Dave
Dr. V T Ingalhalikar
Dr. S M Hardikar
Dr. Shekhar Y Bhojraj
Dr. Arvind Jayaswal
Dr. S Rajasekaran
Dr. Sajan Hegde
Dr. Ram Chaddha
Dr. Raghav Dutt Mulukutla

Core Executive

PRESIDENT	Dr. H. S. Chhabra (2019-20)
PRESIDENT - ELECT	Dr. Shankar Acharya (2019-20)
SECRETARY & TREASURER	Dr. Ajoy Prasad Shetty (2019-2021)
JOINT SECRETARY	Dr. Gautam Zaveri (2019-21)

Executive Committee

Dr. Appaji Krishnan (2018-20)	Dr. Rupinder Chahal (2019-21)
Dr. Ketan Khurjekar (2018-20)	Dr. Ranjith Unnikrishanan (2019-21)
Dr. Bhavuk Garg (2019-21)	Dr. Janardhan Aithala (2019-21)
Dr. Charanjit Singh Dhillon (2019-21)	Dr. Neeraj Gupta (2019-21)

RE-CONSTITUTED LIST OF VARIOUS ASSI COMMITTEES

Program Committee

- | | |
|----|---------------------------------------|
| 1. | Dr. Ajoy Shetty (Chair) |
| 2. | Dr. Shankar Acharya (President elect) |
| 3. | Dr. Gautam Zaveri (Jt. Secretary) |
| 4. | Dr. Janardhan Aithala (EC Member) |
| 5. | Dr. Subhir Jhaveri (Ex EC Member) |
| 6. | Dr. V.K. Sinha |
| 7. | Dr. Uday Pute |
| 8. | Dr. Ajay Krishnan |
| 9. | Dr. Amol Rege |

Education Committee

- | | |
|-----|---|
| 1. | Dr. Saumyajti Basu (Chair) |
| 2. | Dr. Samir Dalvie (Co-Chair) |
| 3. | Dr. Appaji Krishnan (EC Member) |
| 4. | Dr. Neeraj Gupta (EC Member) |
| 5. | Dr. Gururaj Sangondimath (Ex-EC Member) |
| 6. | Dr. Arvind Kulkarni (Ex EC Member) |
| 7. | Dr. Abhay Nene (Ex-EC Member) |
| 8. | Dr. Suresh Pillai (Ex-EC Member) |
| 9. | Dr. R. Siva Kumar |
| 10. | Dr. Thomas Kishen |
| 11. | Dr. Hitesh Modi |
| 12. | Dr. KV Menon |
| 13. | Dr. Satish Rudrappa |
| 14. | Dr. Rushama Tandon |
| 15. | Dr. Pramod V. Lokhande |
| 16. | Dr. Ashok Reddy |

Research Committee

1. **Dr. H.S. Chhabra (Chair)**
2. Dr. Bhavuk Garg (EC Member)
3. Dr. Janardhana Aithala (EC Member)
4. Dr. J. Naresh Babu (Ex EC Member)
5. Dr. GR Vijay Kumar (Ex EC Member)
6. Dr. Vijay Kamath
7. Dr. Tarun Suri
8. Dr. Rajakumar Deshpande
9. Dr. S.S Kale
10. Dr. Karthik Kailash
11. Dr. Girish Datar
12. Dr. Shakti Goel

Social Work

1. **Dr. Shekhar Bhojraj (Chair)**
2. Dr. Amit Jhala (Ex-EC Member)
3. Dr. Kalidutta Das
4. Dr. Premik Nagad
5. Dr. Raghu Verma
6. Dr. Pankaj Kandwal
7. Dr. Sudhir

Spine Registry

1. **Dr. Bharat Dave (Chair)**
2. Dr. Rupinder Chahal (EC Member)
3. Dr. Ankur Nanda (Ex EC Member)
4. Dr. R Sivakumar (Ex EC Member)
5. Dr. Amitava Biswas
6. Dr. Rishi Kanna
7. Dr. M.M. Prabhakar

Website

1. Dr. Rohit Amritanand (Chair & Ex EC Member)

2. Dr. Renjith Unnikrishnan (Ex-EC Member)

3. Dr. Charanjit Singh Dhillon (Ex-EC Member)

4. Dr. B.N. Upendra (Ex EC Member)

5. Dr. Vishal Kundnani

6. Dr. Niraj B Vasavada

7. Dr. Sandeep Viswanath Sonone

8. Dr. Varun Agarwal

9. Dr. Sachin A Borkar

Advocacy

1. Dr. Ram Chaddha (Chair)

2. Dr. Surya Prakash Rao Voletti (Ex-EC Member)

3. Dr. Ketan Khurjekar (EC Member)

4. Dr. Prashant Kekre (Ex-EC Member)

5. Dr. Vikas Tandon

6. Dr. Alok Ranjan

7. Dr. Mahesh Bijawara

8. Dr. Niraj Vasavada B

9. Dr. Rajendra Mehta

Nomination & Constitution

1. Dr. S.Rajasekaran (Chair)

2. Dr. Raghav Dutt (Immediate Past President)

3. Dr. Shankar Acharya (President elect)

4. Dr. Arvind Jayaswal (Ex-President)

5. Dr. Sajan Hegde (Ex-President)

6. Dr. Ram Chaddha (Ex-President)

Task Force for Prevention of Spinal Cord Injury

1. Dr. H.S.Chhabra (President and Chair)

2. Dr. G.D. Tharadara

3. Dr. K. Venkatesh

4. Dr. Ramesh Kumar

5. Dr. Roop Singh

6. Dr. R. Siva Kumar

7. Dr. Shyamasunder Bhat N

8. Dr. Nalli R. Uvaraj

9. Dr. Manoj Singrakhia

10. Dr. B. Mohapatra

Task Force on ASSI Monographs

1. Dr. Gautam Zaveri (Jt Secretary)

2. Dr. Raghava Dutt Mululkutla (immediate Past President)

3. Dr. Amit Jhala

4. Dr. R. Satish

5. Dr. Agnivesh Tikoo

Task Force on Indian Spine Journal (ISJ)

1. Dr. Anil Jain (Chair)

2. Dr. Raghava Dutt Mululkutla (immediate Past President)

3. Dr. Rohit Amritanand (Ex EC member)

4. Dr. Ankur Nanda (Ex EC Member)

5. Dr. B.N.Upendra

6. Dr. Manish Chadha

7. Dr. Kenny David

8. Dr. KV Menon

Task Force on ASSI Outreach Program

1. **Dr. Ajoy Shetty (Chair)**
2. Dr. Samir Dalvie (Chair & Ex EC Member)
3. Dr. Raghava Dutt Mululkutla (immediate Past President)
4. Dr. Chirayu Pamecha
5. Dr. Feroze Ali

Task Force on Case Discussion Forum

1. **Dr. S.K.Srivastava (Chair)**
2. Dr. Raghava Dutt Mululkutla (immediate Past President)
3. Dr. Ujjwal Debnath
4. Dr. Kshitij Chaudhary
5. Dr. Saheel Maajid
6. Dr. Sajesh K Menon
7. Dr. Yogesh Pitwa

Task Force on Consent Form

1. **Dr. Ketan Khurjekar (Chair)**
2. Dr. Rupinder Chahal (EC Member)
3. Dr. Kalidutta Das
4. Dr. Suresh Pillai
5. Dr. Mahesh Bijjwara

Task Force on Elearnspine.org

- | | |
|--|-----------------------|
| 1. Dr. HS Chhabra (President and Chair) | 8. Dr. Bhavuk Garg |
| 2. Dr. Ajoy Shetty (Secretary) | 9. Dr. J Naresh Babu |
| 3. Dr. Saumyajit Basu | 10. Dr. K. Venkatesh |
| 4. Dr. Gautam Zaveri (Jt. Secretary) | 11. Dr. Ankur Nanda |
| 5. Dr. Bharat Dave | 12. Dr. Vikas Tandon |
| 6. Dr. Arvind Kulkarni | 13. Dr. Gururaj |
| 7. Dr. Vishal Kundanani | 14. Dr. Raghavendra S |

Task Force on Capacity development program

1. Dr. HS Chhabra (President and Chair)

2. Dr. Ajoy Shetty (Secretary)

3. Dr. Gautam Zaveri (Jt. Secretary)

4. Dr. Neeraj Gupta

5. Dr. Rajat Mahajan

6. Dr. Shakti Goel

7. Dr. Manish Chaddha

8. Dr. Rishi Kanna

9. Dr. Ranjit Unnikrishnan

10. Dr. Rupinder Chahal

11. Dr. Amit Jhala

12. Dr. Gururaj

13. Dr. Bhavuk Garg

14. Dr. S S Kale

15. Dr. Karthik Kailash

16. Dr. Venkatesh

Task Force on Scoliosis Screening Program

1. Dr. Shankar Acharya (President elect and Chair)

2. Dr. Raghav Dutt

3. Dr. Saumyajit Basu

4. Dr. Ajoy Shetty

5. Dr. Bharat Dave

6. Dr. Bhavuk Garg

7. Dr. Abhishek Srivastava

8. Dr. Vishal Kundanani

9. Dr. Appaji Krishnan

10. Dr. Sudhir Jhaveri

11. Dr. B. N. Upendra

12. Dr. Amol Rege

13. Dr. Ketan Khurjekar

14. Dr. Sakti (Director NIRTAR)

15. Dr. Gurdip

16. Dr. Thomas Kishen

Task Force for SpineWeek 2020

1. Organising Chairman - Dr. H.S.Chhabra

2. Co Chairman - Dr. SK Srivastava

3. Organising Secretary - Dr. Ajoy Shetty

4. Scientific Committee - Dr. Saumyajit Basu & Dr. Gautam Zaveri

ASSI CO-OPTED MEMBERS FOR THE YEAR 2019

01. Dr. Appaji Krishnan

02. Dr. Ketan Khurjekar

03. Dr. Bhavuk Garg

04. Dr. Charanjit Singh Dhillon

05. Dr. Rupinder Chahal

06. Dr. Ranjith Unnikrishanan

07. Dr. Janardhan Aithala

08. Dr. Neeraj Gupta

09. Dr. Subir Jhaveri

10. Dr. Gururaj Sangondimath

11. Dr. Ankur Nanda

12. Dr. R. Sivakumar

13. Dr. Abhay Nene

14. Dr. GR Vijay Kumar

15. Dr. V.K. Sinha

16. Dr. Uday Pute

17. Dr. Ajay Krishnan

18. Dr. Amol Rege

19. Dr. Thomas Kishen

20. Dr. Hitesh Modi

21. Dr. Prashant Kekre

22. Dr. Rohit Amritanand

23. Dr. Rushama Tandon

24. Dr. Pramod v. Lokhande

25. Dr. Ashok Reddy

26. Dr. Vijay Kamath

27. Dr. Tarun Suri

28. Dr. Rajakumar Deshpande

29. Dr. S.S Kale

30. Dr. Girish Datar

31. Dr. Shakti Goel

32. Dr. Kalidutta Das

33. Dr. Premik Nagad

34. Dr. Raghu Verma

35. Dr. Pankaj Kandwal

36. Dr. G Sudhir

37. Dr. Amitava Biswas
38. Dr. Rishi Kanna
39. Dr. M.M. prabhakar
40. Dr. Vishal Kundnani
41. Dr. Rajat Mahajan
42. Dr. Niraj B Vasavada
43. Dr. Sandeep Viswanath Sonone
44. Dr. Varun Agarwal
45. Dr. Sachin A Borkar
46. Dr. Vikas Tandon
47. Dr. Mahesh Bijawara
48. Dr. Rajendra Mehta
49. Dr. K. Venkatesh
50. Dr. Ramesh Kumar
51. Dr. Roop Singh
52. Dr. Shyamasunder Bhat N
53. Dr. Nalli R. Uvaraj
54. Dr. Manoj Singrakhia
55. Dr. B. Mohapatra
56. Dr. Amit Jhala
57. Dr. Agnivesh Tikoo

58. Dr. B.N.Upendra
59. Dr. Manish Chadha
60. Dr. Kenny David
61. Dr. Chirayu Pamecha
62. Dr. Feroze Ali
63. Dr.Kshitj Chaudhary
64. Dr. Saheel Maajid
65. Dr. Sajesh K Menon
66. Dr. Yogesh Pithwa
67. Dr. Suresh Pillai
68. Dr. Bharat Dave
69. Dr. Arvind Kulkarni
70. Dr. Naresh Babu
71. Dr. Karthik Kailash
72. Dr. Abhishek Srivastava
73. Dr. Sakti (Director NIRTAR)
74. Dr. Gurudip Das

REPORTS OF VARIOUS ASSI COMMITTEES AND ASSI TASK FORCES

Research Committee

The main activities of the Research Committee: From Jan to June 2019

A. Multicenter research study:

Details have been mentioned under the progress report on implementation of Strategic Plan

B. Thesis for ASSI Fellows:

- 1. Thesis topic allocated to all fellows: 2018-2020.
- 2. Still in the phase of receiving the draft proposal/protocol from fellows.

S. No.	Name of the successful Candidates			Topic
1	Dr. Keyur Kantilal Akbari	Apollo Hospitals, Chennai.	Dr. Sajan Hegde	Clinical outcomes in patient 75 years and older undergoing spine surgery: impact of increasing age and frailty index on surgical morbidity
2	Dr. Pratik Israni	B.J.Medical College and Civil Hospital, Ahmedabad - (2 vacancies)	Dr. M.M. Prabhakar / Dr. Jayprakash V Modi	Long term evaluation for Recurrence of kyphosis and its functional implications after surgical stabilization of dorsolumbar fractures-retrospective study
3	Dr. Mohammad Sagy			
4	Dr. Pradhyumn P. Rath	Sancheti Spine Centre & Hospital, Pune	Dr. Ketan Khurjekar	A Retrospective study of Functional scoring and Radiological outcomes in management of kyphoscoliotic deformity
5	Dr. Jeevan Sharma	Indian Spinal Injuries Centre, New Delhi	Dr. H.S. Chhabra	How safe are dynamic x-rays in assessing stability of cervical spine trauma cases in non-obtunded patients with incomplete or no neurological deficit- A Retrospective analysis

6	Dr. Jwalant Patel	Bombay Hospital, Mumbai	Dr. Arvind G. Kulkarni and Dr Vishal Kundnani	Recommendations for antibiotic prophylaxis based on regimen at multiple centers, literature based protocols and current bacterial flora
7	Dr. Gokul Hirachand Bandagi	Kothari Medical Centre / Park Clinic, Kolkata- (2 vacancies)	Dr. Saumyajit Basu / Dr. Amitava Biswas	Analysis of Multicentric Vertebroplasty Data regarding Subsequent Vertebral Fractures, Cement Leakage and Correlation to BMD.
8	Dr. Samrat Smrutiranjana			Safety and efficacy of intraoperative steroid usage in cervical myelopathy - a prospective, randomised, double blind and multicentric study.
9	Dr. Dhanish Mehendiratta	P D Hinduja National Hospital, Bombay	Dr. Samir Dalvie	Analysis Of The Pre-Operative Variables Affecting Postoperative Surgical Outcome Following Lumbar Microdiscectomy
10	Dr. Harshal Bamb	Wockhardt Hospital, Mumbai	Dr. Abhay Nene	A Prospective Study to Assess The Diagnostic Efficacy Of 100 Consecutive CT Guided Percutaneous Biopsy In Suspected Cases Of Infective Spondylodiscitis

C. Report on past winners of ASSI Research Awards

2017

The winner of ASSI Research Award 2017 was Dr. Naresh Babu J for the research project **FACTORS INFLUENCING POST OPERATIVE PROGRESSION OF OPLL - Role of Post-operative segmental instability on progression of OPLL.**

2018

Out of the 9 applications the following were declared winners:

1. **Dr. GPV Subbaiah:** "Comparison of multifidus fatty infiltration in lumbar disc herniation, lumbar canal stenosis and lumbar." Head, Department of Spine Surgery, STAR Hospitals, Road No. 10, Banjara Hills, Hyderabad-32, Telangana, India.
2. **Dr. Naresh Babu:** "Curvularin, a fungal macrolactone as an intervertebral disc regenerative agent - In vitro study." Chief Spine Surgeon, Mallika Spine Centre, Guntur.

2019

2 applications have been received so far.

PROGRAM COMMITTEE

Dr. Saumyajit Basu

ASSICON 2019

This flagship event of ASSI was held at Ahmedabad from 24th to 27th January 2019 and was undoubtedly a grand success. Dr. Subir Jhaveri along with the entire organizing committee needs a special congratulatory note on the scientific program they had served to the participants. The preconference meeting started off with SRS world-wide course on 24th and 25th and the theme was "Controversies and Complications in Spinal Deformity Surgery". Excellent SRS faculty along with national faculty made the course very relevant and educative. The main conference started from 25th lunchtime and continued till Sunday, 27th and a galaxy of international as well as national faculty covered all aspects of spine. The plenary sessions were nicely mixed and matched with simultaneously running program at two halls. There were multiple lunch-time symposia and breakfast sessions focusing on a special topic and delegates appreciated this a lot.

ICS 2019

The ICS in Mangalore is scheduled to be held on 27th to 29th of September 2019 at the TMA Pai Convention Centre and will surely evoke a huge academic interest. Dr. Janardan Aithala is working very hard on the program to make it relevant and interactive. This year, the theme is Spine Infections and the topic is going to be covered extensively. Starting from TB spine to Pyogenic infections, the entire spectrum is going to be dissected out thoroughly. As in the previous year, rapid fire sessions consisting of very short papers have been invited and abstract submissions are on the rise. Several international faculties and a host of national faculty will make this event a great success.

SpineWeek 2020

This mega event is considered the Spine Olympiad because it is held every 4 years and is considered as a confluence of all major spine societies of the world. Like in the previous one in 2016 at Singapore, this time also ASSI is participating in full vigor and we hope to make it an academic extravaganza. The venue being Melbourne, we expect a large contingent of ASSI to make our presence felt globally. We hope to showcase the best of scientific research in our country in spine we are on the process of developing the program. The abstract submission is now open and I take this opportunity to request all ASSI members to submit abstracts for consideration for podium or poster presentation.

WEBSITE COMMITTEE

Dr. Ajoy Shetty



The website committee was reconstituted in 2018. Website committee has looked into the modification & upgradation of the website. The main activities include Redesigning the ASSI Spine Registry and modification of the Potts Spine database. The other activities of the website committee included updating the upcoming events, travelling fellowships, awards, payment gateway and advertisement. The website committee met during ASSICON 2019 meeting at Ahmedabad and discussed the further modulations and upgradation to be performed.



TASK FORCE ON **ASSI SPINE OUTREACH**



The spine outreach Programme, the Presidential initiative of Dr. Raghava Dutt was started in the year 2017. The idea of the spine outreach is for the national ASSI faculty to go through two tier cities in India and to impart knowledge on the basics of spine surgery. The course involves lectures, along with hands on workshops on models and cover topics which are important in day to day practise. In the year 2017, we had conducted 3 programmes in Guwahati, Patna and Trichy and in the year 2018, we had conducted 4 programmes in Udaipur, Srinagar, Aurangabad and Hubli. This year we have successfully completed programme in Jabalpur on 24th March 2019. My sincere thanks to Dr. Asheesh Tandon for having co-ordinated for the whole event and contributing to its success.

The course Chairman was Dr. Abhay Nene. The Organizing Secretary was Dr. Asheesh Tandon. The ASSI faculties were Dr. Suresh Pillai and Dr. Ankur Nanda. Due to some personal reasons Dr. Ravi Venkatesan from Chennai had to opt out at the last minute. There was also significant contribution from the local faculties like Dr. KK Pandey, Dr. Sanjay Pandey, Prof. YR Yadav and Dr. S. Banerjee. The course was attended by around 41 delegates.

We would like to thank the Medtronic India and Medtronic RTG team, for having supported us in this venture. Our sincere thanks also, to the entire ASSI faculty, organising secretaries, regional faculties and the delegates for the successful organisation of the events. The plan is to continue the project and aim to include at least 5 to 6 events in a year.



ICS 2019, MANGALORE

TASK FORCE ON ASSI CASE DISCUSSION FORUM

Dr. S.K. Srivastava



ASSI case discussion forum was formally launched at the 32nd Annual Conference of the Association of Spine Surgeons of India at Ahmedabad.

Till date 153 ASSI members have logged in and have been given clearance by the ASSI office for regular participation in the case discussion forum. After inauguration 7 cases have been posted on the ASSI case discussion forum.

It is now available on both the Android and iOS platforms.

The functioning of this App is being regularly checked by the core team.

Processing of new member request is being done within 24 hours with active assistance of Mrs. Neema Bisht.

In spite of repeated requests and reminders via email, there is still a lack of active participation of the logged in members. There is further scope of in depth discussion in a posted case.

I sincerely urge the remaining members of this fraternity which is more than 2000 members strong to download this app so that there is a healthy exchange of ideas for which this forum was conceptualized.



ICS 2019 is being organized by Canara spine Forum trust under the banner of Association of spine surgeons of India and in association with Korean spine surgeon's society, Canara Orthopaedic Society, and Spine chapter of Karnataka orthopaedic association. The event will be held from September 27 to September 29, 2019 at Dr. TMA Pai Convention centre, Mangalore with state of art facilities and residential package is available at the nearby Hotel Ocean Pearl, Mangalore.

The Organizing committee has planned a very good academic program focussed around spine infections with participation from national and international faculty. 4 faculties from Korean spine surgeon's society have confirmed their participation. In addition, there is a training program on research methodology and a session on how to ensure quality care in spine surgery. The plenary session has two important talks, Dr. Kasturi Rangan eminent spine scientist and our own Dr. V T Ingalthalikar will be the main attractions of this session. Among scientific deliberations, organizing committee has stressed on Drug resistance in spinal infections which has become a major challenge for all the spine surgeons. Delegates can also present their work in the 2-minute rapid fire session on various spine related topics.

Mangalore is famous for hospitality and food and organizing committee will ensure that the delegates will have excellent food and stay in Mangalore. A banquet dinner is planned at the beach side.

Registration is already open; delegates are requested to register through ASSI website or conference website 'www.ics2019mangalore.com'. The organizing committee has included a very attractive residential package for the delegates as well as for their family members. An attractive spouse program and local sightseeing are planned.

For further details please contact

Dr. Janardhana Aithala

Organizing secretary, ICS 2019, Mangalore.

Email: icsmanglore2019@gmail.com

Phone: 9448623745





ICS 2019
MANGALORE

ASSI

ASSOCIATION OF
SPINE SURGEONS
OF INDIA



KOREAN SOCIETY
OF SPINE SURGERY

Theme: Spinal Infections

ICS 2019 Mangalore



Dates: 27th to 29th September 2019

Venue:

The Ocean Pearl / TMA Pai Convention Centre

www.ics2019mangalore.com



27TH APRIL
TO 29TH APRIL, 2020
MELBOURNE, AUSTRALIA

ASSICON 2020

DURING SPINEWEEK 2020

Dates: 27th April to 29th April 2020

Venue: Melbourne Convention and Exhibition Centre, Melbourne, Australia.

Website: www.spineweek.org / www.assi.in

Deadline for Abstract Submission: 15th October 2019

Highlights:

- ▶ Opportunity to attend multiple meetings at a single venue
- ▶ Session on "Outcomes of 6 ASSI Multicentric Research Projects"
- ▶ Launch of "Elearnspine.org"
- ▶ Meeting colleagues from across the spine world, sharing platforms and developing bonds
- ▶ ASSI Awards
 - VTI Gold Medal
 - Clinical Research Award
 - Basic Sciences Award
 - Young Investigators Award
 - Publication Award
 - Travelling Fellowship

**Subsidized
Registration
rates for
ASSI members**

**Tentative
Registration
fee : € 650
i.e. INR 49917/-**

Categories

Subsidized rates

For ASSI Members:

- 1st 150 registrations
- Remaining

50% subsidization on the registration fee
40% subsidization on the registration fee

ASSI members whose abstract have been selected for **VTI or any other ASSI Award**
(age should be less than 35 years)

100% subsidization on the registration fee

ASSI members whose abstract have been selected for **podium presentation**
(age should be less than 35 years)

75% subsidization on the registration fee

For Registration:

- Contact Ms. Neema Bisht at assi.secretariat@isiconline.org
- ASSI Desk at ICS 2019 in Mangalore (Special gift for those registering here)

AWARDS/ACHIEVEMENTS/PRESTIGIOUS POSITIONS OF ASSI MEMBERS

Dr. Abhijeet Kadam

- "Presented research on Cervical Disc Arthroplasty with Mobi-C titled: "Sagittal Plane Alignment of a Mobile Bearing Cervical Disc Replacement Device: Does Intra-operative Fluoroscopic Positioning Serve as a reliable Indicator of Final Postoperative Alignment?" at the American Academy of Orthopaedic Surgeons - AAOS 2019 Annual Meeting in Las Vegas, NV, March 12-16th.

Dr. Arun Kumar Viswanadha

- Winners of AO Spine Discovery and Innovation Awards 2019
- Associate Member of AO Spine Knowledge Forum (Degenerative)

Dr. Arun Kumar Kaliya Perumal

- Received the best paper award (2nd place) for research titled "Factors influencing early subsidence following lateral lumbar inter-body fusion" at the 2nd annual meeting, 2019 of the Singapore Spine Society

Dr. Ashwinkumar Vasant Khandge

- Best Scientific Paper Presentation Award at MISSICON 2018 Hyderabad for paper titled: "The Small Gets Smaller: Feasibility of 14mm Tubular Retractor in the Management of Simple and Complex Cases Of Lumbar Disc Herniations"

Prof. Dr. MD Shah Alam

- Invited International faculty in recent times
- 4th Global Congress on Spine & Spinal Disorder, Auckland, New Zealand, September 2019
- 10th World Gene Convention-2019 (WGC-2019), September 2019 in Qingdao, China as Chair & Speaker

Dr. Nirmal D Patil

- APSS Medtronic Spine fellowship for 2019 under Prof K. Abumi in Japan (currently)
- AO spine national fellowship under Dr Arvind Kulkarni June 2019
- Selected for Clinical Spine fellowship at Queen's Medical Center, Nottingham UK

Dr. Pramod Sudarshan

- K2M FOCOS Visiting Surgeon Program - Preceptor ship with Prof Ohenaba Boachie Adjei, at FOCOS Orthopedic hospital, February 2019, Accra, Ghana

Dr. Sanjay Yadav

- Presented paper at APSS 2019 in Cheon, Korea

Dr. Saumyajit Basu

- Chairman, Worldwide Course Committee and Scoliosis Research Society (SRS)
- Board Member, Asia Pacific Spine Society (APSS) and Indo American Spine Alliance (IASA)

Dr. S. Dilip Chand Raja

- Association of Spine Surgeons of India (ASSI) Travelling Fellowship Award 2019
- Asia Pacific Spine Society (APSS) Best Clinical Research Award 2019 at APSS Conference, Seoul, South Korea
- Asian Spine Journal for Best Clinical Paper 2019
- APSS-SICOT International Exchange Fellowship to visit Prof Ulrich Noeth at Evangelisches Waldkrankenhaus Spandau, Berlin, Germany

Dr. Vishal Kumar

- Two weeks of the Royal College Travelling Fellowship under Dr. Colin Nnadi at Oxford University Hospitals, UK
- Received "The Globus Medical Award" by SRS
- Completed 3 weeks of Spine Fellowship at Denmark, Copenhagen
- Elected as Fellow of The American College of Surgeons (FACS)