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E-NEWSLETTER

ACOUSTICAL SOCIETY OF INDIA

Volume 27(1-4) January - October 2017

Official Address

ASI Secretariat
C/o Acoustics, Ultrasonics & Vibration (AUV) Section
CSIR-National Physical Laboratory
Dr. K. S. Krishnan Road
New Delhi 110 012, India

Tel. : +91-11-4560 8317, 4560 9220
Fax : +91-11-4560 9310
E-mail : asisecretariat.india@gmail.com
Website : www.acousticsindia.org

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President's Message



Prof. (Dr.) V. R. Singh
President, ASI

It gives me pleasure to write President's Message for ASI News Letter. The activities of ASI have been very impressive during the recent past. I acknowledge the great support of the Executive Council (EC) and all Members of Acoustical Society of India (ASI).

National Symposium on Acoustics (NSA-2016) was jointly organised by Acoustical Society of India and KIIT Group of Institutions, Gurgaon on November 17 to 19, 2016, at KIIT, Gurgaon. There were 120 -oral presentations two keynotes and 14 invited talks. The participation has been from universities and industry from all parts of the country. The Symposium was a great success, under the able guidance of Dr S. S. Agrawal. Sincere thanks are due to the Management of KIIT and organising team of the event.

We are now proceeding ahead with NSA-2017 which is scheduled to be held at Aligarh Muslim University, Aligarh, on October 28-30, 2017, under the leadership of Dr. Yasser Rafat of Mechanical Engineering Department. There will be invited talks and keynotes from eminent researchers, in addition to many oral paper presentations on the latest topics in the field of acoustics. All the members are invited to participate in the Symposium.

As informed earlier, Western Pacific Acoustics Conference (WESPAC-2018), will be organised jointly by ASI, CSIR-NPL and WESPAC on November 11 to 15, 2018 at CSIR-NPL, New Delhi, India. The complete conference announcement will be released soon. However, the event is recorded in the calendar of ICA, ASA, etc. All are invited to attend.

As reported, the President of ASI (Dr V. R. Singh) attended International Conference on Acoustics (ICA 2016), in Buenos Aires, Argentina (South America), on September 5 to 10, 2016. He gave one research presentation, chaired three technical sessions on Biomedical Acoustics and attended ICA Board meeting. There was election also for Board Members. The ICA-2016, was attended by 800 delegates. Presentations were in all the fields of acoustics.

I am glad to inform that ASI has been assigned by ICA holding of celebration events under the banner "India and International Year of Sound -2019", with UNESCO. The information has been sent to all the members to organise "Noise Awareness Programs' in their cities.

Recently, an 'International Noise Pollution Awareness Day' was organised jointly by ASI and CSIR-NPL at New Delhi on 26th April, 2017 which was very successful. There were specialists' talks from eminent speakers from CPCB, NEERI-Nagpur, NPL, ASI, IIT-Delhi, etc. The audience included senior officials and about 500 school children. Dr D. K. Aswal, Director, NPL gave a special talk for children about noise and its awareness.

Other Noise Awareness Sessions will be arranged during NSA-2017 and WEPAC-2018.

ASI publishes Journal of Acoustical Society of India (JASI) regularly. Dr B. Chakraborty, Editor-in-Chief and his editorial team are thanked for keeping the publication of JASI in stipulated time frame. Many special issues on special topics have been published by inviting Guest Editors in the field. I also organised one special issue on Physical Acoustics and Ultrasonics. The details are given in the Report of Editor-in-Chief.

It is promised that the ASI will continue to organise National and International conferences, from time to time, to discuss future of acoustics.

As is aware, the acoustics has an important role in all branches of science, engineering and biomedicine. Therefore, more research projects should be undertaken for the benefit of the Society. Even, better acoustics is required for smart cities.

ASI activities are being taken up to schools and colleges for the benefit of young students/researchers, by introducing specific courses or interactive programs for them.

We are making efforts to make JASI, as a SCI journal, through Springer or other sources.

- ♣ I am glad to present here ASI News Letter Volume 27 (1, 2 & 3). Suggestions are invited for making improvements.
- ♣ I may like to inform that during NSA-2017 at Aligarh, we will have our EC Meeting as well as AGM. There will also be prize distribution for various ASI awards.

I wish you all a very Happy and Prosperous Season!

Prof. (Dr.) V. R. Singh
President, ASI

Conference News

NSA 2016 GURGAON

NSA 2016 was organized by the KIIT College of Engineering under the aegis of Acoustical Society of India (ASI) during November 17-19, 2016 with a major theme as **Acoustics for Quality Improvement in Life**.

The objective of the symposium was to provide a forum for in-depth deliberations on the frontier areas of pure & applied acoustics covering various applications in the civil and defense sectors.

The conference was held in the KIIT College of Engineering Campus, Sohna Road, Gurugram. The conference Committee Chair was Prof. (Dr.) S. S. Agrawal, Director General, KIIT & Past President ASI.

The inaugural ceremony was held on November, 17, 2017 and inaugurated by Shri B.R. Kamrah the Chairman of KIIT. It was followed by the following two plenary talks one by Prof. Hiroya Fujisaki from Japan and the other by Prof. Yegnanarayana from IIT Hyderabad.

1. Prof. Hiroya Fujisaki, Professor Emeritus, University of Tokyo (DL-ISCA) delivered a keynote on **"Modeling the Generation Process of Fundamental Frequency Contours of Speech - An Example of Interplay between Physiology, Physics, Phonetics, and Signal Processing."**
2. Prof. B. Yegnanarayana, BITS-Pilani, Hyderabad delivered **Rais Ahmed Memorial Lecture**.

The inaugural session (from 12:00 to 13:00) included Welcome & Lamp lighting, Inaugural Address by Prof. S S Agrawal, Director General, KIIT, Presidential address & Awards Presentation and Presidential Address by Prof. V R Singh, President-ASI, Address by Chief Guest, Prof. Indermohan Kapai, Member UGC Commission, souvenir release and memento distribution, Address and Thanks by Prof. P S Grover, Vice Chairman/Campus Director, KIIT followed by lunch.

Eight invited talks by very eminent researchers from different areas of acoustics were presented. A list of the talks is given below:

1. Prof. Dainius Juras, Concordia University, Montreal, Canada delivered a keynote on **"The Nature of Interior Cavity Sounds in Indian Classical Musical Drum – Mridanga."**
2. Dr. B Chakraborty, National Institute of Oceanography, Goa delivered a talk on **"Impacts of Underwater Noise on Marine Life: Initiatives to Mitigate their Effect."**

3. Dr. D D Ebenezer, NPOL, Kochi delivered a talk on **“Phased arrays of transducers with flexing radiating faces of any shape and arranged in any grid pattern on a cylindrical surface.”**
4. Dr. Mahavir Singh, NPL, New Delhi delivered a talk on **“Noise Control Measures for Diesel Gensets (DG Sets) - Practical Solutions and Applications.”**
5. Dr. V R Singh, President ASI, delivered a talk on **“Novel Biomedical Acoustic Techniques for Cancer Diagnosis and Therapeutic Treatment in a Ubiquitous Manner.”**
6. Prof. S V Ranga Nayakulu, Dean - R&D, Guru Nanak Institutions Technical Campus, Hyderabad delivered a talk on **“Potential application of Acoustic Emission technique for weld structure integrity monitoring under dynamic loading.”**
7. Prof. M G Prasad, Stevens Institute of Technology, USA delivered a talk on **“Why acoustics matters to quality of life?”**
8. Dr. G. Latha, NIOT was awarded with **Dr. M S Narayanan Memorial Award** by ASI and she delivered a lecture on **“Ambient noise measurements in the polar region and noise characterization.”**

A large number of contributory research papers were submitted in different branches of Acoustics. After a thorough review, 99 papers were selected by the technical committee. These were presented in two parallel oral sessions.

The Executive Council Meeting and the General Body Meeting of the ASI were held on 18th November, 2016 in the conference room of the institute. The members of the ASI and other special invitees attended the meetings.

An Indonesian cultural program was presented by a cultural group from Bali. The valedictory session was held on 18th November, 2016 and chaired by Dr. V. R. Singh, President of ASI. Valedictory Session was conducted in C V Raman Auditorium from 11:00-13:00 hrs which started with remarks by Dr. V R Singh, President-ASI followed by Conference Report presented by Dr. S. S. Agrawal, DG-KIIT and feedback by many participants including Prof. Hiroya Fujisaki & Prof. E S Rajagopal. Feedback from the audience was also received. The session ended with vote of thanks by Dr. Mahavir Singh, Secretary-ASI.

Dr. Agrawal, DG-KIIT thanked all the authors, invited speakers and sponsors for their support & cooperation for making this event a great success.

All the delegates gathered for a combined photo session.

Total Papers Received: 100

Papers approved by Review Committee: 99

Papers Published: 66

Participating Universities/Institutions: AIISH-Mysore, IIT-Hyderabad, IIT-Delhi, IIT-Kanpur, IIT-Madras, NPOL-Kochi, ABV-IIITM-Gwalior, NSTL-Visakhapatnam, BITS-Pilani, Hyderabad, NIO-Goa, CSIR-NPL, KIIT, PDM University, IISc, Concordia University- Montreal, Canada, and Stevens Institute of Technology, USA, etc

Industrial Sponsors: Ginni, Himalayan Acoustics, Ideal Industries, Kaponlek, Mittal Enterprises, Siemens

Institutional/Govt. Sponsors: DRDO, DST, DietY, CSIR, IIITM, Gwalior



Group Photograph of the Delegates of the NSA-2016 at KIIT, Gurgaon

WORKSHOP ON INTERNATIONAL NOISE AWARENESS DAY 2017 UNDER THEME NOISE POLLUTION

The one day workshop on **International Noise Awareness Day under theme Noise Pollution** is over. The workshop was held at CSIR-NPL, New Delhi, 2017 April 26, and was a great success. The workshop was hosted by the CSIR-National Physical Laboratory (CSIR-NPL) and the Acoustical Society of India (ASI). The workshop was attended by more than 500 participants including scientists/engineers from CSIR-NPL, various State Pollution Control Boards, Ph. D. scholars and students from Delhi Schools. Our special thanks go to Dr. D. K. Aswal (Director, NPL), Dr. V. R. Singh (ASI, President), Dr. Ranjana Mehrotra (Head, Physico-Mechanical Metrology Division), Prof. N. Tandon (IIT, Delhi), Dr. A. B. Akolkar (Member Secretary, CPCB), Dr. M. Muthukrishnan (Head, Environment/DIAL-GMR), Ms. Mita Sharma (Head, UPCD/CPCB), Dr. D. Saha (Head, Air Lab/CPCB), Dr. Ritesh Vijay (CSIR-NEERI), and all NPL Colleagues, for making the event successful. Dr Mahavir Singh has been the main organizer of the program and deserves special thanks.



Address by Dr. D. K. Aswal, Director, CSIR-NPL

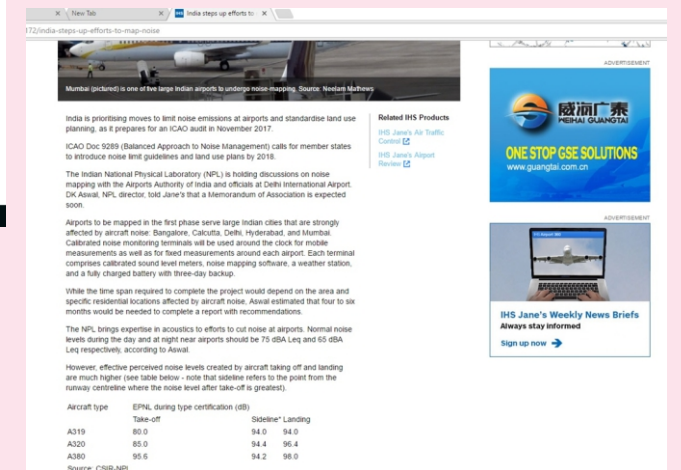
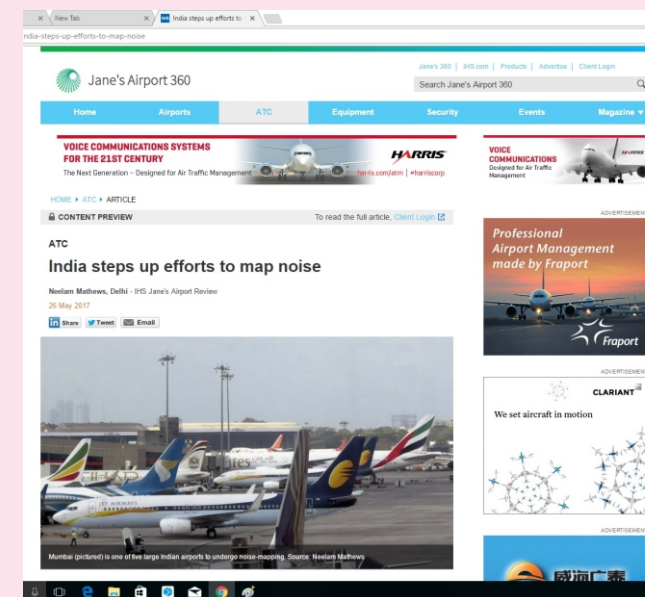


Talk on Noise Pollution by Dr. D. K. Aswal, Director, CSIR-NPL



Right to Left seating on Desk: Dr. Mahavir Singh, Dr. V. R. Singh, Dr. D. K. Aswal & Dr. Ranjana Mehrotra

Some published news sharing with you in DD News Channel, DrugTodayOnline.Com, UNIINDIA.COM, Dainik Navjyoti epaper, TIMESGROUPS, CSIR News Letter, CSIR Face book, Jane's Airport 360, etc.



Announcements

(a) National Symposium on Acoustics (NSA-2017)

The *National Symposium on Acoustics (NSA-2017)* will be held at the Mechanical Engineering Department, Aligarh Muslim University, Aligarh (UP), 2017 October 28-30. The symposium details are available on symposium website www.nsa2017.org.

Looking forward to welcoming you to **Aligarh Muslim University, Aligarh.**

(b) 13th Western Pacific Acoustics Conference (WESPAC 2018)

WESPAC 2018 NEW DELHI CALLING

Planning is well underway for the [13th Western Pacific Conference on Acoustics](#). **WESPAC 2018** will be organized jointly by CSIR-NPL and ASI under the aegis of the Western Pacific Commission for Acoustics (WESPAC), at CSIR-NPL, New Delhi on 11-15 November 2018.



WESPAC 2018 New Delhi

“Acoustical Science and Technology for Quality of Life”

Organized by:

CSIR-National Physical Laboratory (CSIR-NPL),
Acoustical Society of India (ASI) & Western Pacific Commission for Acoustics (WESPAC)
Co-sponsored by the International Commission for Acoustics (ICA)

CALL FOR PAPERS

November 11-15, 2018

CSIR-National Physical Laboratory
<http://www.wespac2018.org.in>

IMPORTANT DATES

Deadline for Receipt of Abstracts	15 May 2018
Deadline for Tutorial Proposals	15 May, 2018
Acceptance & Invitation to Submit Manuscripts	15 June 2018
Deadline for Receipt of full Manuscripts	1 September 2018
End of early Bird Registration	1 September 2018
WESPAC 2018 New Delhi	11-15 November 2018

New Delhi looks forward to welcoming you!!!

For further details please contact

Dr. Mahavir Singh: mahavir.acoustics@gmail.com

Dr. V. R. Singh: vrsinghieee@gmail.com

(c) International Year of Sound

The ICA is working hard to have the year 2019 declared the *International Year of Sound*. The International Year of Sound 2019 will be a global initiative to highlight the importance of sound and related technologies as well as the need for quietness and peace in the lives for all in society. The International Year of Sound (IYS) will consist of coordinated activities on regional, national and international levels.

(d) Recognitions/Awards



Professor Raja Ram Yadav has been appointed as the vice-chancellor of Veer Bahadur Singh Purvanchal University, Jaunpur. Prof. Yadav was with the Physics department of Allahabad University earlier. Uttar Pradesh Governor Ram Naik appointed him as vice-chancellor of VBS Purvanchal University in the state. We, on behalf of ASI feel proud of you.



Professor A.R. Mohanty (FASI), IIT, Kharagpur, has been honoured with the Shyamal Ghosh and Sunanda Ghosh Chair Professorship at IIT Kharagpur. He has also been elected as a fellow of the Indian National Academy of Engineering for the year 2017. Congratulations! We're all, ASI family so proud of you!



Dr. Mahavir Singh (FASI), CSIR-NPL, has been selected for the Lifetime Achievement in Acoustics and Vibration Metrology for the Research Awards – VIRA 2017 and also elected for the Indo-Japan Collaboration Award on Acoustics. Dr Singh has also been honoured for designated Chair of the Indo-Japan Friendship Award on Acoustics for the memory of the late Prof. K. K. Pujara and Prof. Y. Kagawa. Congratulations! We're all so proud of you!

Membership News

The following is list of approved Life Members of ASI during 2016-17:

Sl. No.	Number of the Member	Name of the Member
1.	LM-930	Dr. G. Latha
2.	LM-931	Mr. Jos Thomas
3.	LM-932	Dr. Shahab Fatima
4.	LM-933	Mr. Tusarkanta Sahoo
5.	LM-934	Mr. Satish K. Lokhande
6.	LM-935	Dr. Ghanshyam Laxman Bodhe
7.	LM-936	Dr. Ritesh Vijay
8.	LM-937	Dr. S. Sobha
9.	LM-938	Dr. Yasser Rafat
10.	LM-939	Dr. Shailesh R. Nikam
11.	IM-034	M/s/ Soundworks, Bengaluru Rep.: Mr. Harsha, MD
12.	LM-940	Mr. Rajkumar R.
13.	LM-941	Dr. Maneesh Kumar Singh
14.	LM-942	Dr. Pravin Singru
15.	LM-943	Dr. Radhika Vathsan

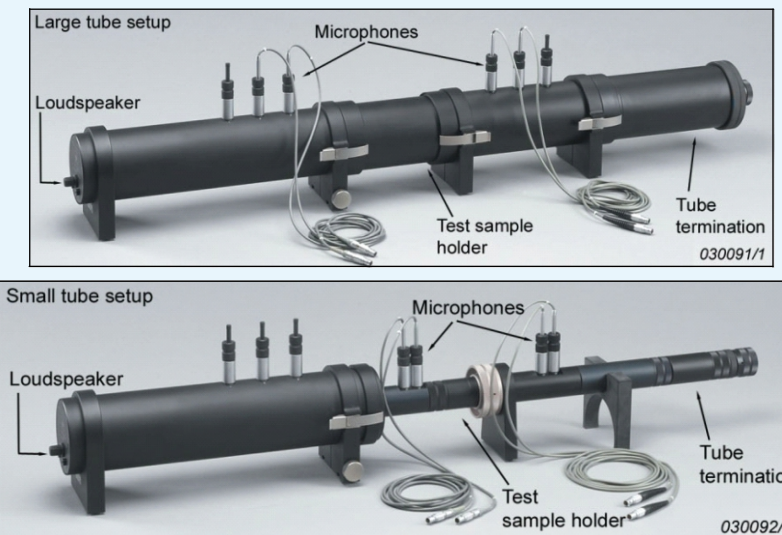
New Books on Acoustics & Vibration

1. **N. Tandon & B.C. Nakra**, 'Vibration and Noise Engineering' I K International Publishing House, 2017 204 pp Paperback ISBN: 978-93-859095-2-8.
2. **K. G. Bhatia**, 'Foundation for Industrial Machine: Handbook for Practising Engineers', 2nd Edition, 2011 860pp Hardcover ISBN: 978-81-906032-2-5.
3. **J. S. Rao**, 'Advanced Theory Vibration' John Wiley & Sons (Asia) Pte Ltd , 1994 431pp Hardcover ISBN: 978-81-224044-2-5.

New Articles

Method for Measuring of Normal Incidence Transmission Loss and Related Acoustical Properties of Materials Placed in a Standing Wave Tube

A method for measuring the normal incidence transmission loss and related acoustical properties of a sample placed in a four-microphone standing wave tube is described here. A conventional, two-microphone impedance tube was connected to a sample holder downstream of the first microphone pair and a section downstream of the sample holder that accommodates a second pair of microphones. Sound pressure measurements on both sides of a piece of material placed in the sample holder for two different tube termination conditions (open and approximately anechoic) are typically used to estimate the two-by-two transfer matrix that characterises the sample. When the sample under test is symmetric front-to-back, a single measurement with one tube termination condition is sufficient to determine the transfer matrix elements. The transfer matrix elements can be used to calculate the transmission loss of the sample as well as a variety of other acoustical properties. The procedure is demonstrated here through measurement of a complete set of the acoustical properties of a fibrous material.



Many types of sound absorbing materials are used in noise control applications. These materials include, for example: glass fiber, polymeric fibrous materials, and various types of foams, along with barrier materials used either alone or in combination with absorbing layers to form composite treatments. It is of interest to be able to assess quickly the noise control impact of these materials, whether in sound absorption or barrier applications, as an aid either to material development or treatment selection. A procedure addressing that need is presented here. Although a primary result of the measurement procedure is the normal incidence transmission loss of the sample, a variety of other properties such as the ratio of the sound energy that is dissipated within the sample to the incident sound energy may also be determined.

In this article, the theory of the transfer matrix approach is described first, and then followed by a description of the experimental implementation of the procedure. Various measured results, including the normal incidence transmission loss along with corresponding reflection and absorption coefficients and surface normal impedances, are then presented for a nearly-homogeneous fibrous thermal insulation material. Based on the latter results, some further comments are offered on the frequency range over which useful experimental results may be obtained, in particular, over which frequency range the tube results may be taken to represent the properties of a laterally-infinite sample of the same material. It is noted that a low frequency limit is established by a sample resonance resulting from the constraint of the sample around its edges.

Calendar of Meetings and Conferences

Compiled by the Information Service of the Acoustical Society of India (ASI)

2017

3 - 8 September, Skiathos Island, Western Aegean, Greece

4th Underwater Acoustics Conference and Exhibition (UACE2017)

www.uaconferences.org/

4 - 6 October, A Coruña, Spain [ICA Sponsorship]

TECNIACÚSTICA 2017 - 48th Spanish Congress on Acoustics - Iberian Encounter on Acoustics

www.sea-acustica.es/index.php?id=494

European Symposium on Underwater Acoustics Applications

www.sea-acustica.es/index.php?id=740

European Symposium on Sustainable Building Acoustics

www.sea-acustica.es/index.php?id=499

28 - 30 October, Aligarh Muslim University, Aligarh

National Symposium on Acoustics (NSA - 2017)

www.nsa2017.org

26 - 29 November, Bali, Indonesia [ICA Endorsement]

Regional Conference on Acoustics and Vibration (RECAV 2017)

www.aavi.its.ac.id

4 - 8 December, New Orleans, Louisiana, USA

174th Meeting of the Acoustical Society of America

<http://www.acousticalsociety.org>

8 - 10 December, Honolulu, Hawaii, USA

2017 International Congress on Ultrasonics

www4.eng.hawaii.edu/~icu2017/

2018

7 - 9 May, Ibiza Spain

NOVEM (Noise and Vibration Emerging Methods) 2018

novem2018.sciencesconf.org

7 - 11 May, Minneapolis, USA

175th Meeting of the Acoustical Society of America

www.acousticalsociety.org

27 - 31 May, Heraklion, Crete, Greece

EURONOISE 2018

euracoustics.org/events/aaa-conferences/

26 - 29 August, Chicago, USA

47th International Congress and Exposition on Noise Control Engineering (INTER-NOISE 2018)

www.i-ince.org/

24 - 26 October, Cadiz, Spain

XI Iberoamerican Congress on Acoustics

TECNIACÚSTICA 2018 - 49th Spanish Congress on Acoustics - X Iberian Congress on Acoustics

5 - 9 November, Victoria, Canada

176th Meeting of the Acoustical Society of America

www.acousticalsociety.org

11 - 15 November, New Delhi, India

WESPAC 2018

contact: V.R. Singh

2019

13 - 17 May, Louisville, Kentucky, USA

177th Meeting of the Acoustical Society of America

www.acousticalsociety.org

16 - 19 June, Madrid, Spain

48th International Congress and Exposition on Noise Control Engineering (INTER-NOISE 2019)

178th Meeting of the Acoustical Society of America

www.acousticalsociety.org

08 - 13 September, Aachen, Germany

23rd International Congress on Acoustics (ICA 2019)

www.ica2019.org

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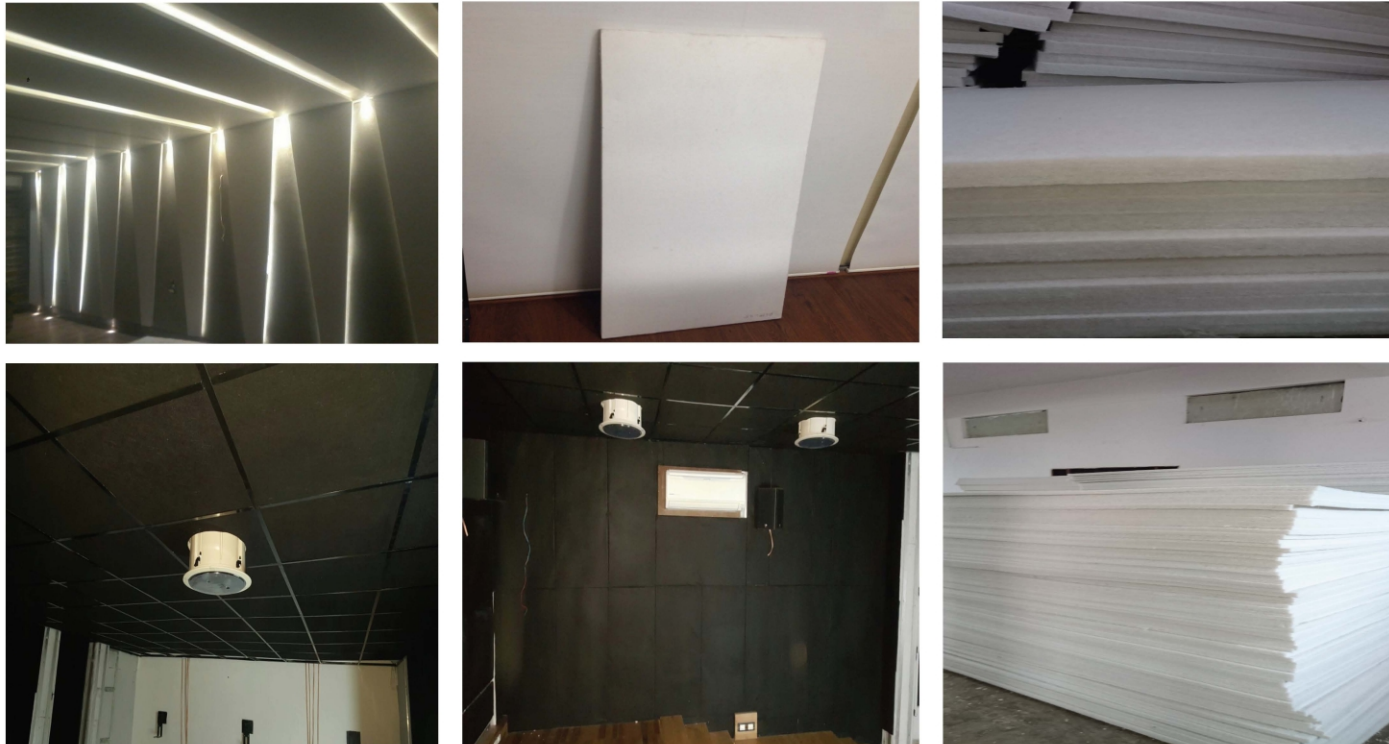
President : Dr. V. R. Singh

E-Newsletter compiled by: Dr. Mahavir Singh, Dr. B. Chakraborty, Dr. Yudhisther Kumar Yadav

Dhyuthi Synthtex LLP

Dhyuthi Synthtex LLP was formed in Early 2016 and makes available high quality Acoustics products through the brand SYNTH-SCS

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