



commuNITy

The official newsletter of NIT Tiruchirappalli



INSTITUTE



STUDENTS



ALUMNI

Director's Message



NIT Tiruchirappalli is known for its academic excellence and research output. As part of forging more International collaborations, there has been a surge in the number of International Conferences, organized, where invited distinguished experts, delegates and sponsors gained first-hand experience of NIT Tiruchirappalli. The Institute is also making strides in establishing partnerships with Industries and the CII meet held recently is the way forward to strengthen links with SMEs around the Institute. Participation in the Tamil Nadu Defense Corridor activities will further boost this interaction.

The sports team brought laurels to the Institute by bagging the overall best outstation college in the national level sports meet organized by IIT-BHU. It is also heartening to see that the students of NIT Tiruchirappalli extended their hands to various districts in Tamilnadu, affected by the cyclonic storm Gaja.

As the saying goes “Team work makes the dream work”, we at NIT Tiruchirappalli are committed to attain the vision and mission of the Institution as per the 5- year Strategic Plan 2019-24.

Let us dedicate ourselves to solving problems which will impact the society as a whole.

Best wishes

Dr. Mini Shaji Thomas.

CONTENTS

INSTITUTE

Indo Singapore Hackathon 2018	1
SPARDHA'18-IIT BHU	1
AICTE- Margadharshan scheme	2
CII Meet at NITT	2
ICACSE 2018	3
NPSC-2018	4
IOT and Security workshop	5
Artificial intelligence	6
CEDI-NITT	6
Goals of academic ecosystems	7
Article in scientific reports	7
Radio programme on India's higher education	7
NITT professor honoured with BHARATH VIKAS AWARD-2018	8

STUDENTS

Support to GAJA Cyclone victims	9
Achievements of students	9
Club activities	9
Research scholars forum	13
Tool training workshop by SCIEnT	13

ALUMNI

ALUMNITT'18	14
-------------	----

NITT on News

Dr.S.Arun Daniel
Professor, EEE

Dr.N.Sivakumaran
Professor, ICE

Dr.Nisha Radhakrishnan
Associate Professor
Civil Engineering

Dr.B.Janet
Assistant Professor, CA

Dr.Vinod Balakrishnan
Professor, Humanities

Dr.G.Muruganandhan
Associate Professor, DOMS

Dr.Josephine R L
Assistant Professor, EEE

Shri K.Pradeep
Technical Officer, CSG

Dr.K.N.Sheeba
Associate Professor
Chemical Engineering

Dr.S.Mekala
Associate Professor
Humanities & Social Sciences

Dr. Sathish
Assistant Professor
Production Engineering

NIT Tiruchirappalli won second prize at Indo Singapore Hackathon 2018



Twenty teams from Singapore and India, with university and college students selected on a nationwide basis, participated in the INDO-SINGAPORE JOINT HACKATHON held in Singapore. A total of 120 participants took part in the 36-hour hackathon during November 12-13, ending with the grand finale on November 14. Nanyang Technological University and MHRD'S Innovation Cell organized this SINGAPORE-INDIA HACKATHON-2018 under the theme "Solution for humanity". Prime Minister Narendra Modi presented the awards to the winning teams of the India-Singapore Hackathon 2018 on 15th November. Earlier in the year, Prime Minister of India, Narendra Modi, during his visit to Singapore, proposed to the Singapore Prime Minister Lee Hsien Loong that India and Singapore should organize a joint hackathon to harness and showcase the "innovation potential" of youth. High Commission of India in Singapore facilitated the event in collaboration with Ministries of Education and Foreign Affairs of Singapore. Problems posed to the teams were in the areas of mapping, synchronizing the output of diverse social media, shared digital identity verification etc. NIT Trichy was one among the two NITs that represented the Indian contingent and most of the other teams were from the IITs.

The members of the teams were chosen based on their programming skills. Mr Kartik Venkataran (IV year CSE), Mr Deep Bhattacharya (IV year CSE) and Mr D. Arutselvan (IV year ECE) and mentor Dr. Rajeswari Sridhar, Associate Professor and Head of Department of Computer Science Engineering were the members of the team from NIT, Tiruchirappalli. They were selected based on a screening process by the MHRD after which they underwent a 2-day orientation at IIT-Bombay before their departure to Singapore in order to equip themselves for the Hackathon. 5 teams each from both the countries were shortlisted for the finale.

NIT Trichy bagged the overall 2nd prize from among both the teams with a cash award of \$6,000 SGD for building an effective learning platform based on crowd sourcing and live chat for expert interaction in a Neuro-Linguistic Processing engine. The learning platform can tag topics to summarize the concepts in the form of mind maps and give recommendations for prerequisites and related topics with links to resources. Prof. Mini Shaji Thomas, Director, NIT, Tiruchirappalli congratulated the team.

NIT-T recognized as Overall Best Outstation College in SPARDHA'18 National level sports meet at IIT BHU

INDIAN INSTITUTE OF TECHNOLOGY (BHU), VARANASI organized the 34th edition of its annual games and sports extravaganza -- Spardha, from 26th to 28th of October 2018. With a history of 33 years, the fest now stands as the largest intercollegiate sporting event. This edition brought a footfall of more than 40,000 participants from 250+ colleges.



Some of the medals won by the team

1. Aquatics Boys - Winners
2. Athletics Boys - Second Runners-up
3. Athletics Girls - Runners-up
4. Chess Boys - Winners
5. Handball Boys - Runners-up
6. Volleyball Boys - Second Runners-up
7. Kho Kho Boys - Winners
8. Kho Kho Girls - Winners
9. Table Tennis Boys - Runners-up
10. Lawn Tennis Boys - Runners-up
11. Powerlifting - Silver and Bronze

Further NIT-T has been recognized as the Overall Best Outstation College.

NIT Tiruchirappalli will be mentoring 14 AICTE institution under Margdarshan Scheme

Margdarshan (Share and Mentor Institutions) scheme is an initiative by the All India Council for Technical Education (AICTE) designed to implement the 'Hub and Spoke' system. In this scheme, National Institute of Technology, Tiruchirappalli has been granted the status of 'Mentor' Institute to serve as the hub to guide and disseminate knowledge to the Mentee Institutions. The purpose of the scheme is to conduct faculty development programmes, national level workshops, guest lectures and other activities for the technical upliftment of the member Institutions in terms of teaching learning process. In this regard, the Council has sanctioned a grant of Rs.30.00 lakhs for a duration of 3 years.

The Mentor Institute has identified fourteen accredited technical institutions for this programme. As a part of the formal launch of the scheme, workshop on the 'Implementation of Margdarshan scheme (AICTE) for Mentee institutions' was conducted on 30th November 2018. Dr. N. Sivakumaran, Chief Coordinator and Dr. G. Saravanallango, Co-Coordinator briefed about the Margdarshan scheme and its implementation to the principals, senior professors of the Mentee institutions. Dr. Mini Shaji Thomas, Director, NIT-T addressed the gathering and mentioned



that this endeavour will contribute towards the improvement of technical education. The Director added that this scheme will also help to motivate the students to come up with innovative ideas and projects and widen the exposure to the prototype development on enhanced educational standards and research aptitude. This will also facilitate to enhance the lateral thinking and attitude,

and to improve the communication skills and self-confidence among the faculty and students. The workshop eased the interaction between the Mentee Institutions and NIT-T and highlighted the comprehensive objectives of the programme, project guidelines, expected networking outcomes.

CII Meet at NIT, Tiruchirappalli



Confederation of Indian Industry (CII), Tiruchirappalli Zone Meet was organised on 4th December at National Institute of Technology, Tiruchirappalli by the office of Dean Research and Consultancy. Distinguished Industrialists and delegates drawn from various industrial sectors like manufacturing, steel, health care and education took part in this extraordinary meet.

Prof M Umapathy, Dean Research and Consultancy welcomed the gathering. Mr.A.S. Ananthakrishnan, Chairman, CII Trichy Zone, Managing Director, CEEYES Engineering Industries PVT. Ltd delivered his address and emphasised the importance of this meet. He is an Alumnus of 1990 batch Production Engineering, NIT, Tiruchirappalli. He shared his experience

on venturing his experience as an Entrepreneur immediately after his graduation from the institute with the knowledge and support gained from Professors in production Engineering Department.

Prof. Mini Shaji Thomas, Director NIT, Tiruchirappalli presided the function. She spoke on strengthening the industry and institute interaction and to look for the feasibility in utilising the R&D and testing facilities available at various Centres of Excellence and Departments at NIT-T. The institute will cater the needs of small, medium and large industries which will enhance the research and consultancy activities on the state of art technologies. She also said that industries can explore the possibilities of interacting with well-experienced faculty members

from the institute thereby catering to the industrial requirements by providing solutions for critical problems in a shorter span of time. Mr.A.R. Syed Arif, Vice Chairman, CII Trichy Zone, Managing Partner, Five Star Industries and other members from CII and various industries were present on the occasion. This meet is considered to be the first step in marching towards innovation and entrepreneurship. Nearly 60-70 industrial delegates from leading industries of Trichy zone participated in this event. Industrialists and members from CII visited centres of Excellence like Siemens manufacturing, Centre of Excellence in Corrosion and Surface Engineering (CECASE), Centre for Energy and Environment (CEESAT) and various departmental laboratories.



International Conference on Advances and Challenges for Sustainable Eco System (ICACSE 2018)



All human activities have a negative impact on the Earth. We consume more resources than the planet can offer. To meet the increasing demand of raw materials, we damage the ecosystems with intensive and polluting practices, which are heavily influenced by the daily choices of every single person. We, as humans, have a moral responsibility towards our ecosystem and all men and

women have to commit themselves to protect the worlds' natural heritage. In order to resolve the challenges and address the environmental crisis many research activities have been initiated by the government, private sectors and academia. The chemical engineers at NIT-T are conscious in bringing about the essential technologies, and innovations towards a sustainable environment.

In this context, the International Conference on Advances and Challenges for Sustainable Ecosystem (ICACSE-2018) was organized by Department of Chemical Engineering during 6th-8th December 2018. NIT-T served as a platform to discuss various trends and challenges to advance the technological aspects of 'design and operation of chemical plants and development of advanced/novel

functional materials & processes, analysing substances and measuring the physical properties of substances & testing theories' along with a thematic focus on interdisciplinary areas.



As part of the 'Golden Jubilee' celebrations of Department of Chemical Engineering, NIT-T, the event ICACSE'18 brought an immense opportunity for interaction among young scholars and scientific delegates to utilize the expertise and technical knowledge that may bring a new era for innovations in the field of Chemical engineering, Energy and Environmental engineering for sustainable ecosystem. The conference had eminent chemical engineering scientists from India and abroad including Padma shri Prof. G.D. Yadav from ICT Mumbai, Prof. Srinivasan Rajagopalan from IIT Madras, Prof. Navid Mostoufi from Iran, Prof. Agamuthu from (UM) Malaysia and Prof. Praveen LINGA from (NUS) Singapore who shared their research expertise. The conference was graced by the august presence of more than 200 participants from all over the country. Dr. Mini Shaji Thomas, Director NIT-T, insisted the importance of international conferences to induce mutual collaborations between industries and academicians to bring about the unnoticed research potential to light.

The strategic plan of NIT-T has a moto exclusively on sustainability with the interdisciplinary research centres to be inducted at the institute in the near future. The conference logo attracted the Director's attention with the 'green arrow' symbolizing the march towards the 'sustainable future' and the benefits to the society at large. The Chief guest of the conference ICACSE'18, Padma Shri Prof. G.D. Yadav shared his academic views and presented an overview of ICT, which has gifted more than 15 'Padma' awardees to the nation. About the sustainability challenges of the country, Prof. Yadav has insisted the importance of academic fraternity and industrialists to collaborate and motivate the multi-disciplinary research outcomes which may largely benefit the basic needs of the people of our country. "Wasting just 10g of food, may leave million others in hunger", "The challenges for India largely lies in developing basic sanitation, food, infrastructure, providing clean and accessible water source and attaining satisfactory energy generation through renewable resources", he quoted. He addressed the research community to concentrate more on reducing waste while generating beneficial products. "Transform waste to wealth with the help of systems engineering and sustainable routes", he insisted. He has also briefly elaborated the importance of utilizing 'Green chemistry' principles to minimise waste and reduce unwanted by-products. He has shared a quick overview on the importance of CO₂ sequestration ,

improving bio-methanol production, features of H₂ energy and solar based transport in the upcoming decade.

The overall coordinator Dr.P.Sivashanmugam while presenting the report of the conference added that there were 143 oral and 16 poster presentations and the best presentation award had been awarded to 16 speakers of different sessions. Plenary lectures of Padma shri Prof. G.D. Yadav, Prof. Srinivasan Rajagopalan from IIT Madras, Prof. Navid mostoufi from Iran, Prof. Agamuthu from (UM) Malaysia and Prof. Praveen LINGA from (NUS) Singapore added value to the conference. Dr.Meera Sheriffa Begum, Head of Chemical Engineering Department presented the list of Life Time Achievement Awardees while Dr.N. Anantharaman, senior professor of the Department elaborated on the citation. The distinguished alumni of the department Mr. Chandrasekaran, former director CPCL Chennai and Mr. BV Ramanan of Liviya Polymer Pvt. Ltd and Prof. S.Sundaram, former Head of Chemical engineering, have been bestowed "Lifetime achievement award" by the director of the institute Prof. Mini Shaji Thomas.



20th National Power Systems Conference NPSC -2018 at NIT Tiruchirappalli



The Department of EEE organized the 20th National Power System conference NPSC-2018 titled "Towards a Sustainable Energy Future through Efficient, Smart and Green Technologies" from 14th to 16th December 2018. The conference was well attended by eminent academicians, faculty members and students from reputed technical and educational institutions from different

parts of the country and representatives of governmental bodies and industries. NPSC 2018 had a high-level and extensive scientific program consisting of four tutorial sessions (each of three hours duration), seven keynote addresses, one panel session and 23 technical sessions. A total of 194 delegates of which 52 were from academia, 121 were students,

12 from the industry and 8 under the listener category attended the conference. In addition to this, there were 31 invitees, and 28 delegates under the sponsored category. 192 delegates were from India, and two from abroad. The four pre-conference tutorial sessions, saw fully-packed halls with stalwarts of Indian Power Engineering as well as young and vibrant minds, gathered to devour every word uttered by the experts. The sessions addressed the current issues in the rapidly changing structure of the power system with the addition of renewable energy sources and ever-increasing demand for electrical power without compromising the reliability and quality. Dr. Ramakrishna Gokaraju, University of Saskatchewan and Dr. Ashok Kumar Pradhan, IIT Kharagpur spoke elaborately on Modern Power System Protection Practices and Applications for Smart Grids and Microgrids. In Tutorial Session – I. Dr. Sachin Srivastava, ABB Ltd., presented the “IEC600255 Functional Testing Standards of Numerical Relays”, where his years of industrial experience was very evident. Both the topics adhered to the theme of the session “Protection in Modern Power Systems”. Apart from student and faculty members of NITT, a total of 67 delegates participated in this session. Interesting queries from young researchers were taken up by the experts with enthusiasm post the session.

The theme of Tutorial Session – II was “Synchro-phasor Technology in Power Systems”, was superbly handled by Dr. Anil Kulkarni & Dr. Soman of IIT Bombay. They provided a deep insight into how WAMS could be integrated with the Indian Power Grid. It is to be noted that the Power Grid Corporation of India is currently implementing the Unified Real Time Dynamic State Measurement project (URTDSM), which aims to aid the reliable operation of the Indian Power



Grid through optimal planning and installation of PMUs throughout the country. The session was attended by 51 delegates, and many more young minds from the host institute.

Tutorial Session – III was handled by Dr. Aniruddha M. Gole, HVDC Manitoba & Dr. Om Nayak, Nayak Power Systems. The theme of the session was “HVDC & FACTS”. A total of 33 delegates attended the hands-on session with PSCAD software tools.

The theme of the fourth Tutorial session was “Microgrids”, where Dr. NP Padhy, IIT Roorkee delivered the work carried out in their well-equipped microgrid laboratory titled “Solution to the future power distribution: Microgrids”. This was followed by Dr. Jayashree Ravishankar, UNSW Australia, who spoke on “Islanded Operation of Micro-grids – Issues and possible solutions”. The session saw the highest attendance of 76 delegates. NPSC 2018 received 359 technical papers, of which 175 were accepted after a peer review process undertaken by 222 reviewers.

The technical sponsors of the conference were the Institute of Electrical and Electronics Engineers (IEEE), in particular the Madras Section, and the IEEE Power

and Energy Society (PES). Major power industries and organisations also supported the conference in the form of sponsorship. Power Grid India, POSOCO Ltd., CPRI Bangalore, ABB Ltd., Nayak Power Systems, TEQIP-III NITT, NPTI, NTPC, and OPAL-RT generously contributed towards maintaining the brand value of NPSC, and the standard, professionalism and ambience of the conference. Dr. N. Ammasai Gounden & Dr. C. Nagaman were the general chairs of the conference. Professor Ramamoorthy best paper award in power systems was given to Dr. Anil Kulkarni, Professor of Electrical Engineering, IIT Bombay and his student Chindu for their paper titled “A generalised state space approach for studying EMTP simulation models”. Professor Ramamoorthy best paper award in power electronics was given to Dr. Kumaravel, Assistant Professor, NIT Calicut for the paper “Novel isolated modified interleaved dc-dc converter to integrate ultracapacitor and battery sources for EV applications.” Dr. N. Kumaresan, was the Convenor of the Conference.

Workshop on State of art Technologies on IoT and Security

by Department of Computer Applications, NIT Tiruchirappalli

The Department of Computer Applications organized a 5-day short term course on IoT & Security from 3rd to 7th December in collaboration with AidelTec, India. The course started with a series of lectures with real-time

demonstration of IoT applications, real-world case studies and hands-on practice sessions using the Arduino, Raspberry pi 3, and ESP 32 boards by the participants. The coordinators, Dr. (Mrs.) B. Janet and Dr. (Mrs) Eswari, introduced

the course plan for the 5-day program. The theoretical session started with Mr. Salai Deva Thirumani, technical Engineer, AidelTec, India. He gave an introductory note on IoT & Security and introduction to the various



boards of IoT like Raspberry Pi 3, ESP 32, and Arduino UNO boards. Practical sessions on working with analog input devices, Introduction to Serial monitor, Interfacing Temperature sensor, Light sensor, accelerometer sensor were experimented. An IoT demonstration of UDOO NEO & UP Square board were introduced to the participants. The participants were taken to visit the IoT lab of Siemens Centre of Excellence in Manufacturing. The course ended with a discussion on Artificial Intelligence in IoT and its research perspective. Around 40 participants including students, researchers and faculty members from 12 colleges in Tamil Nadu and Andhra were benefited by this course.

ARTIFICIAL INTELLIGENCE USING DEEP LEARNING AND MACHINE LEARNING



The workshop on "Artificial Intelligence Using Deep Learning and Machine Learning" organized by the department of Electrical and Electronics Engineering, NIT-T in collaboration with E-Summit, IIT Roorkee and Finland labs has been inaugurated on 26th November 2018. The faculty coordinators of the workshop, Dr. S. Moorthi, Dr. Josephine R.L. and Dr. S. Mageshwari from NIT-T briefed that the five-day workshop is to build, train and deploy the state of the art deep learning methods. The five-day workshop was aimed at developing faculty in Electrical and Electronics Engineering, Electronics and communication Engineering, Computer Science and Engineering and other engineering branches using hands-on approach. The participants were given a thorough understanding of Machine learning, Deep learning, Artificial Intelligence, Neural networks, Clustering, Classification, Algorithms and Innovative Applications. They left being familiar with the Hand-Written Recognition, Computer Vision, Recent Neural Networks, Recommender Systems, Reinforcement Learning, Self-driving Car Technology, Natural Language Processing and its applications for real world.

CEDI- NITT: Technology-Based Entrepreneurship Development Programme (TEDP 2018)

The six-week technology based Entrepreneurship Development Program for aspiring entrepreneurs organized by Centre for Entrepreneurship Development and Incubation (CEDI), National Institute of Technology, Tiruchirappalli sponsored by Entrepreneurship Development Institute of India (EDI) under DST NIMAT Project 2018-19, concluded on 24th November 2018. 20 participants between the age group of 22 to 45 years actively participated in TEDP. During the training programme the candidates got an opportunity to choose a varied range of activities. The training programme was modelled for manufacturing and services sectors so as to enable the aspirants to choose from a range of entrepreneurial activities viable in their respective areas. Director NITT, Dr. Mini Shaji Thomas, while interacting with each participant, encouraged them to utilize the facilities in the institute and wished them success in their business ventures. She emphasized the need for encouraging entrepreneurial skills and motivated the participants to



become entrepreneurs in this district and create jobs rather than seeking. The TEDPs are generally aimed at providing lessons on Motivational Inputs Managerial Inputs, performance improvement as well as business cum sector specific Technology development training to the participants. Sharing their experiences at the valediction ceremony, the trained aspirants said that the TEDP has given them a great deal of confidence to start their entrepreneurial journey.

One of the Participant Prof. Sakthivel has developed 2D Solar cell and the training program had made him think further for project commercialization. Another participant Ms. Gajalakshmi and Mr. Karthik are working on the Herbal Napkin manufacturing. They said that the training program made them think on upgrading for enhancing technology development towards manufacturing on par with state of art technologies.

Goals of academic eco-systems for the Millennials and the Generation Z

The National Institute of Technology, Tiruchirappalli and IIT, Srirangam together celebrated the National Education Day to commemorate the birth anniversary of Maulana Abul Kalam Azad, the first education minister of Independent India. Dr R Karvembu, Associate Dean of Academics organised the event. To mark the occasion, a special address on Goals of future education was delivered by Dr.S.Arul Daniel, former Dean(Academic) of the Institute. Bringing to attention the context of future academic eco-system, Dr Daniel presented the shocking data that there is a suicide every 40 seconds in the world and the deaths due to suicide are more than 5 times caused by the Tsunami of 2004. Further, there is one person out of every four being mentally ill or addicted to substance misuse. Considering that the millennial and the Generation Z are of the high-risk group

prone to the societal malady of suicide and mental illness, the goals of future education should be set, said Dr Daniel. Stressing on the importance of the remnant thoughts and behaviour that is left on an individual after graduation, the special address emphasised the need for providing a journey during the time of stay in the college to allow the student imbibe empathy, trustworthiness, deep relationships and lifelong learning skills. Drawing lessons from some of the Distinguished Alumni who had testified that it is a relationship with faculty members, friends and inter-personal skills that had been of help in their career, Dr Daniel said that future academic eco-system should shift the focus from training towards "what they can?" to "who they are?".

Article published in Scientific Reports - Nature publishing group

By Department of Metallurgical and Materials Engineering

An article titled "Nucleation and growth of $TiAl_3$ intermetallic phase in diffusion bonded Ti/Al Metal Intermetallic Laminate" was published in the prestigious Scientific Reports by Nature publishing group by Mr. N. Thiyaneshwaran, Dr.K. Sivaprasad & Dr.B. Ravisankar of Department of Metallurgical and Materials Engineering. A combination of soft and hard materials

are considered to be ideal materials for defence armor applications. In this work, soft Ti, Al sheets and a hard $TiAl_3$ phase was laminated so as to achieve the armor requirements. While exploring the science behind the formation of the in situ intermetallic phases in metal- intermetallic laminates (MILs), a novel nucleation and growth phenomenon



Radio programme on Discussion on India's Higher Education Landscape by Director, NIT Tiruchirappalli and Director, IIM-T

Discussion on India's Higher Education Landscape by Prof. Mini Shaji Thomas Director, NIT Tiruchirappalli and Dr. Bhimaraya Metri, Director, IIM -T with Dr Rajkumar Upadhyay, ADG, AIR & DD was aired on 16-12-2018, Sunday over primary Channel 936 Khz on FM Rainbow 102.1 Mhz

Discussion on India's higher education landscape
 Participants : **Dr. Bhimaraya Metri**, Director IIM Trichy.
Dr. Mini Thomas, Director NIT-Trichy.
 Moderator : **Dr. Rajkumar Upadhyay**, ADG, AIR&DD.
 Programme on 16.12.18, Sunday
 ☎ 8.30 pm over primary channel **936Khz.**
 ☎ 9.30 pm on FmRainbow **102.1Mhz.**

[/FmRainbowTrichy](#) [@TrichyFmRainbow](#) 94865 91021

for $TiAl_3$ intermetallic phase in Ti/Al diffusion couple was observed based on diffusion kinetics. The interdiffusion and intrinsic diffusion coefficients are calculated to make evident of dominant diffusion of Al towards Ti in Ti/Al

diffusion couple obtained by solid state diffusion bonding. It was surprising to observe that the diffusion rate of Al was around 20 times higher than Ti with the formation of Kirkendall pores near the Al/TiAl₃ interface. With such dominant diffusion of Al towards Ti, the nucleation and growth of TiAl₃ intermetallic phase in Ti/Al couple happens mainly at the Ti/TiAl₃ interface rather than Al/TiAl₃

interface which is evident by the presence of very fine nearly nano-sized TiAl₃ nuclei/grains near the Ti/TiAl₃ interface. Even though the intermetallic phase is expected to nucleate at Al/TiAl₃ interface, the relatively larger TiAl₃ grains near that interface depicts grain growth with minimal nucleation. The theoretical calculations on diffusion parameters are in accordance with experimental

observations of TiAl₃ intermetallic growth phenomenon in Ti/Al system. Based on these theoretical calculations, Ti-TiAl₃-Al laminates are established and which will be useful for fabrication of light weight body and vehicle armor for defence applications. This work was fully funded by DRDO under ER & IPR scheme.

NIT Tiruchirappalli Professor honoured with BHARAT VIKAS AWARD -2018

Dr. K. Muthukkumaran, Professor, Department of Civil Engineering, National Institute of Technology, Tiruchirappalli has received BHARAT VIKAS AWARD -2018 for his consistent, diligent and outstanding performance in the field of Geotechnical Engineering and Coastal Reservoir. Dr. Muthukkumaran contributes to the Geotechnical Society as the Chairman of Trichy Chapter and is elected as the National Executive Committee Member of the Indian Geotechnical Society, Delhi and International Technical Committee Member of International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) –TC-301 on Preservation of Historic Sites. His contribution to the ISRO - Chandrayaan- 2 Mission project on Lunar Soil Simulant was highly appreciated. The award was given by Institute of Self Reliance, Bhubaneswar. The award ceremony was inaugurated by Shri Surjya Narayan Patro, Cabinet Minister, Govt. of Odisha and Shri Kalyan Ray IAS (Retd), former Principal Secretary, Labour & Employment Ministry. The awards were distributed by



Shri Giridhar Gamang, former Central Minister & Chief Minister of Odisha, Shri Prashanta Nanda, film maker and Member of Parliament – Rajya Sabha, Shri Panchanan Kanungo, former Finance Minister, Odisha & Chairman Institute of Public Finance & Policy, Shri Ramesh Chandra

Misra IAS (Retd), former Secretary Govt. of India, Ministry of Personal & Member of Central Administration Tribunal, Shri Shyam Narayan Tiwari IPS (Retd), former Joint Secretary Govt. of India & Director General of Police & Prime Minister Security.

RESEARCH & CONSULTANCY

Sponsored Research Projects

1. Development of Traffic Monitoring Analytics and under Vehicle Scanning Inspection System, Vandi Technology, Singapore, 400000 INR, for a period of 3 years, Dr. Palanichamy P, Professor, Dr. Varun P. Gopi, Assistant Professor Department of Electronics and Communication Engineering.
2. Reduction in greenhouse gas emission with synergistic mixed matrix membrane for CO₂ separation, Asean-India (AISTDF), SERB, New Delhi, 2886000 INR for a period of 2 years, Dr. G. Arathanareeswaran, Professor, Department of Chemical Engineering.
3. Design and Development of Piezoelectric energy harvesting system integrated with electric circuit and storage, NPOL, Kochi, 980000 INR for a period of 18 months, Dr. Ezhilarasi D, Associate Professor, Dr. G. Uma, Professor, Dr. M. Umapathy, Professor, Department of Instrumentation & Control Engineering.
4. Management of Entities in a distributed NFV marketplace using Block chain, INTEL, USA, US\$ 9372, Dr. Malarkodi B, Associate Professor, Dr. Rebekka B, Assistant Professor, Dr. Gunavathi N, Assistant Professor, Department of Electronics and Communication Engineering.
5. Research & Development of Light weight Stream Cipher, DST-ICPS, GoI, 2043949 INR for a period of 3 years, Dr. Kunwar Singh, Assistant Professor, Department of Computer Science Engineering

Industrial Consultancy Project

1. Design of thermal performance evaluation system with charging - discharging circuit for Li-ion Battery for E-Vehicle, BHEL, Tiruchirappalli, 8.14 lakhs, Dr. Duraiselvam M, Professor, Dept. of Production Engineering.
2. Design modification of equal area based grid measurement for alternate square pitot air flow measuring device, BHEL, Tiruchirappalli, 20.12 lakhs, Dr. Satheeshkumar V, Assistant Professor, Dept. of Production Engineering.
3. Establishment of Nano/cost effective insulation coating for high temperature application to reduce insulation thickness, BHEL, Tiruchirappalli, 25.78 lakhs, Dr.V.M.Biju, Associate Professor, Department of Chemistry & Dr.M.Duraiselvam, Professor, Department of Production Engineering.
4. 3D Modeling and Engineering Design Validation of 12 Meter E-Bus, BHEL, Tiruchirappalli, 40.17 lakhs, Dr. Duraiselvam M, Professor, Department of Production Engineering.
5. Evaluating criteria for Battery condition assessment, BHEL, Tiruchirappalli, 25.55 lakhs, Dr.V.Sankaranarayanan, Associate Professor, Department of Electrical and Electronics Engineering.
6. Technical assistance to reduce the energy consumption vapor compressor refrigeration chiller plant, HAP, Tiruchirappalli, 2.42 lakhs, Dr. N. Sivakumaran, Professor, Department of Instrumentation and Control Engineering

MOUs / Mutual Non-Disclosure Agreements

1. Fidelity Business Services India Private Limited, Bangalore from 28/11/2018 to 27/11/2021

INTERVIEW WITH PROFESSOR NOORUL HAQ

The editorial team of commuNITy Newsletter was fortunate to get an interview from Dr. A. Noorul Haq who retired from NIT Trichy in October 2018. Dr. A. Noorul Haq a visionary academician and a dynamic administrator features in the Interview.

Where did you get your Alma-mater from?

I completed my Bachelors in Engineering from Annamalai University in Mechanical Engineering by 1975, and Government College, Coimbatore for my Master's and PhD in Manufacturing Management from IIT Delhi.

So, how did you gain interest in V engineering, especially Mechanical engineering?

When I did my schooling, my father encouraged me towards the field of Mechanical Engineering. That's why I took up Mechanical engineering. My interests in Automobile Engineering also pushed me towards it.

How would you like to describe your 40+ year career in the academic world?

I started my career in GCT Coimbatore. I was there for seven years. Then I shifted to REC Trichy in 1983. Since then I am in NIT Trichy, and recently in October 2018, I retired from this post. It really was a very interesting experience. From the beginning I was teaching industrial engineering, optimisation and other techniques. I interacted with the students in terms of the lectures, B.Tech, M. Tech projects and research activities. 29 students have got their PhDs under my guidance. In total, I was enjoying the teaching and research experience, and being in NIT Trichy.



What according to you is the most fulfilling part of being a professor?

I feel that the most fulfilling part is when the students are interested in what I am teaching, when students would interact with me and benefit from it, when they ask questions and discuss about the subject during and after class, when they want to do some projects. In that way, it is exciting.

You have written many highly cited papers. So, what was the most interesting Research Paper or Project that you worked on and why?

I am very much interested in industry, optimisation and operations. My PhD topic was Integration of Production, Inventory and Distribution systems. When I completed my PhD, the term supply chain wasn't coined. My paper, which was about closed supply chain and open supply chain, was very interesting.

What do you think makes the students of NIT Trichy apart from the crowd, and could you tell us about a student of yours that amazed you.

Many of my students are pursuing Masters and PhDs abroad. They used to contact me via mail and WhatsApp. One of my students is pursuing a PhD in Green Supply Chain Management in the Southern University of Denmark. After going there, he acquired good contacts with the neighbouring European countries like Greece, Germany, Italy etc. I am proud of him. Also, some of my students are professors in NIT and other leading institutions.

What were your favourite topics to teach and why?

Industry engineering. I used to teach operation research, there are many topics in operation research such as programming, scheduling, etc. It was very interesting to me.

What qualities do you think is essential for a student?

Students should be sincere and serious about their work. Four years from now, they will join a company or opt for higher studies. All the qualities gained from their time in NITT will be reflected in their career later. They should also be sincere and serious about academics.

What advice would you like to give to New or aspiring professors?

There are many vacancies and recruitment processes are going on. Therefore, they should concentrate on their academic and research work and bring the students to a higher level. If you do this, then definitely they will get advanced in their career.

You have held many posts in the Administration of NIT Trichy like Dean Faculty Welfare, controller of examination, etc which of these roles was the most challenging for you, and in which role did you feel your work had the most impact?

When Dr. M . Chidambaram was here as the director, I was the Dean of Administration, then during Dr. Sundarajan's period, I was Dean of Faculty Welfare. Both of these positions required interaction with all kinds of humans, faculties, students etc. Everyone had their own problems. I had to listen to grievances of faculty and non faculty members. I had to do whatever was possible to solve it.

NIT Tiruchirappalli students extended their support to victims of GAJA CYCLONE in Delta region

Cyclone Gaja have slammed the Delta and Coastal districts of Tamil nadu leaving many people homeless and destroying crops and infrastructure. Thanjavur, Pudukkottai, Nagapattinam, Dindigul, Cuddalore, were some of the districts that have suffered major damage due to calamities. Students volunteers reached out to around 1000 victims with relief material on the doorstep in districts of Pudukkottai, Thiruthuraipoondi, Tanjavur, Mannarkudi, Pattukottai, Nagapattinam, Vedaranyam covering around 36 interior villages which includes Vettanviduthi, Surakkadu, Alangudi, Tholuthoor, Sembiyan valour, Manali, Athikesanallur, Alathambadi, Soorappallam, Kodiyakkadu, Karupangulam, Vanduvanjeri, Vellikidangu, Ayanmul, Thalaikadu, Korkai, Pamani, Kokkaladi, Arunthampulam, Sekalnadapuram, Karambakudi, Puduvalasal, Pudukkudi. They were provided with relief material containing mosquito nets and tarpaulin, torch light candle, match box, biscuit, rusk, mosquito coil, brush, toothpaste, atta powder, water bottle with the support of students, faculties, staff and alumini from RECAL Association.



Additional fund of around 5.5 Lakhs has been contributed by students for this noble cause and apart from that an additional amount of 5 Lakhs has been sent to Chief Minister relief fund to help the needy.

Club activities

Designers' Consortium has brought home yet another addition to its hall of fame. The boundaries have yet again been broken, this time, by starting a new legacy at Techfest 2018, IIT Bombay, Asia's largest annual technical festival with an estimated footfall of 1,75,000. The projects of the club, namely the Conmover and Vidhai, bagged the first while Zafer and Reed Reaper bagged the second place respectively in the event - Reforming the past. The event under the Ideate cluster demanded ideas that would create solutions to be emulated in real life for the benefit of mankind and society at large to supplement farmers and industries. 2 teams from DC had registered their projects in the month of September wherein they had to submit the Abstracts for their ideas. After clearing the initial abstract round, the teams that were shortlisted were allotted mentors who were professors from various reputed institutions across

the country. The teams emerged victorious by bagging the first and second prize in the event. The final round was on the 14th of December 2018.

9 winners of all the 3 ideate cluster events were invited to exhibit their prototypes. The prototypes were once again judged by engineers from Maruti Suzuki on various parameters such as Ergonomics, Cost Analysis, Novelty, Credibility and Application. The teams once again proved their calibre by being the only 2 teams out of the 9 winning teams from IIT Bombay to make it to the Finale of Technovation – Colours of Youth (The Annual National Level Talent Hunt competition for budding Engineers from across the country). The club strives to excel further and is currently working to compete with their fellow innovators for the finale of Technovation which will be held during the month of February.

Achievements of Students



Two Research scholars of Dr. P. Muthuchidambaranathan of ECE Dept, NITT, Mr. Anandpushparaj J and Mr. Vineeth Palliyembil were invited by Professor Maurizio Magarini, Associate professor, Department of Electronics, information and Bioengineering, Politecnico di Milano, Milan, Italy, to carry out collaborative research in UAV 5G wireless communications under Indo-Italian executive programme of cooperation in Science and Technology.



The details of their innovation are

Conmover

The objective is to make conservative, sustainable and economical amendments in the industrial process of loading and unloading goods and materials from and onto the truck and to transport goods inside industries using the proposed product and thereby reducing human efforts.

The machine proposed is aimed to cater to the needs of small and medium scale industries where huge investments in load carrying equipment is not made and is still employing human labour to perform such tasks. It uses multiple actuators and a slider crank mechanism to load and unload goods from trucks and it can also be used to transport the goods within the industry. It is a highly adaptable device that can be used in any industry with ease. It is also cost effective and user friendly at the same time.

Vidhai

The focus of this project is to design and develop a machine to sow seeds mechanically. The seed sowing system was designed to incorporate and accomplish all the tasks involved in cultivation which involves tilling the soil, digging the burrow for the seed for sowing an array of seeds of variable quantity at definite intervals of space and to close the burrows with residual soil. This device was developed to assist the small-scale farmers in the fields. It has been designed to be highly flexible as to be used for multiple crops. Hence a gear system is used to change the seed spacing and a telescopic link to vary the depth of the burrow. The machine can be controlled manually or can be dragged by cattle. This mechanism increases the cultivation efficiency for a given mechanical effort at a very reasonable cost.

Zafer

The objective of this project is to design an alternative mechanism that can be used in combination locks to make it safer for the user. It uses a simple but ingenious mechanism to overcome the existing problem of sound generation by the components inside the safe, that enables the burglar to predict the combination number. The proposed solution is fail-proof and completely sound proof as well. It is a cost effective and user-friendly alternative for the existing combination safes available and has immense applications across various industries.

Reed Reaper

In a country where rice and wheat are considered as a staple diet, the harvesting methods of these crops play a significant role in the agrarian economy. This project is focused on implementing an innovative mechanism for a manually operated combine harvester engineered for small-scale Indian farmers, since employing heavy machinery in harvesting is huge financial burden on small-scale farmers and the process of mechanical crop harvesting is labour-intensive and requires care and time for a decent yield. The three processes of cutting, threshing and separation of grains are integrated in one machine.

Research Scholars Forum

Research Scholars Forum, NIT Trichy has brought eminent research people from prestigious organizations like ISRO, IISc and IIST through a two days' workshop. This workshop was organized to benefit all research scholars, faculties and students of every academic institutions. Dr. C. Venkata Sai Kiran, Scientist, Indian Space Research Organisation, Trivandrum, Dr. D. Sastikumar, Professor, National Institute of Technology, Trichy, Dr. P. Chakravarthy, Associate Professor, Indian Institute of Space Science and Technology, Trivandrum and Dr. Vinodh

Kumar Krishnan, Post Doctoral Research Associate, Indian Institute of Science, Bangalore shared their research experience on Testing and Characterization. Around 120 participants were benefited from this workshop through lecture and demonstrations on Advanced Materials Testing and Characterization.



Tool Training workshop by SCIEnT



The SCIEnT Lab (Student Center For Innovation In Engineering And Technology) of NIT Trichy organized a Tool Training Workshop on November 3rd and 4th aimed at providing hands on training on the Lathe, welding and ethical hacking. Lathe training was given by the professionals from CEEYES Industries, which is a start-up of NIT-T alumnus Mr. Ananthakrishnan from the batch of 1990 and Welding training was given by professional welders from SunMachx Industries.

Day 1 started with a 1 hour theory session

on lathe and welding covering the basics and safety measures while handling tools followed by hands on training where students learned lathe operations such as turning, facing, centering, boring, drilling, knurling and threading. Everyone got an opportunity to fearlessly work on lathe.

Day 2 had two sessions, one for ethical hacking and other for welding. Professional welders demonstrated butt welding and students were given training on the same. Demonstration was given on various techniques of hacking in Ethical hacking session. Apart from these,

an electric tool display was also arranged where students were briefed about usage of various electronic tools.

36 students were selected from multiple applicants to attend the workshop to ensure that each student would get proper time to practice. With the workshop being widely appreciated another workshop has been planned for the upcoming semester for the students who missed the workshop.

This workshop was supported by NITT's alumni batch of 1990 and faculty advisor Dr A.K Bakthavatsalam sir.

ALUMNITT'18 meet held at Bengaluru



RECAL, the alumni association of NIT-Tiruchirappalli (earlier known as REC-Trichy), held its annual alumni meet in Bengaluru on November 24, 2018 at Hotel Aloft, Cessna Business Park. Nearly 400 alumni from different branches and batches of the institute gathered at the meet, which was named ALUMNITT '18. The intent of the meet, organised by the Bengaluru Chapter, was stated clearly in its tagline: 'Re-connect. Network. Have fun.' Dr Mini Shaji Thomas, Director, NIT-Tiruchirappalli, was the Chief Guest

of the evening. Speaking on the occasion, she said that a number of positive initiatives are taking place in the institute with the support of the alumni. She thanked them and added that the institute is looking forward to work closely with them in future too.

Dr.Raman Sankaranarayanan, Dean –Institute Development and Alumni Affairs, NIT- Tiruchirappalli emphasized how the Alma Mater could benefit from the Alumni. He described some of the ongoing initiatives from the Alumni.

Mr.Ajay Sharma, President, RECAL-Bengaluru said that the 'Participation at the alumni meet exceeded their expectations. It was heartening to see people from various batches mingle, exchange ideas and offer support to one another.'

Talks by noted alumni of the institute were organised as part of the meet.

Shapoorji Pallonji was the Platinum Sponsor of the event, while Shriram Properties was the Gold sponsor.

Laurels for NIT-T students at Singapore hackathon

R. VALAYAPATHY | DC
TIRUCHY, NOV 18

The National Institute of Technology, Tiruchirappalli (NIT-T) has bagged the overall second prize at the 'Indo Singapore Hackathon 2018' recently, competing with a team of student teams from both countries.

The NIT-T team won a cash award of \$6,000 SGD (Singapore dollars) for building an effective learning platform based on crowd-sourcing and for a live chat on expert interaction in a neuro-linguistic processing engine, a release here said.

The learning a platform can tag topics to summarise concepts in the form of mind maps and give recommendations for prerequisites and related topics with links to resources, according to Dr Samson Mathew, dean (students welfare), NIT-T.

He said the NIT-T team consisted of Kartik Venkataran (IV year CSE),



Prime Minister Narendra Modi along with Education Minister of Singapore Ong Ye Kung, others (from Left to Right) Anil Sahasrabudhe, Chairman, AICTE, Deep Bhattacharya (IV year CSE), D Arutselvan (IV year ECE), Kartik Venkataran (IV year CSE), and mentor Dr Rajeswari Sridhar, Associate Professor and Head of Department of Computer Science Engineering.

Deep Bhattacharya (IV year CSE) and D. Arutselvan (IV year ECE) and mentor Dr

Rajeswari Sridhar, associate professor and head of department of Computer Science Engineering NIT-T. He said 20 teams from Singapore and India, with university and college students selected on a nationwide basis, participated in the hackathon.

A total of 120 participants took part in the 36-hour hackathon under the theme "Solutions for humanity". Prime Minister Narendra Modi presented the awards to the winning teams of the India-Singapore Hackathon 2018.

Earlier in the year, Mr. Narendra Modi, during his visit to Singapore, had proposed to the Singapore Prime Minister Lee Hsien Loong that India and Singapore should organise a joint hackathon to harness and showcase the "innovation potential" of their youth, Dr Sridhar added.

Prof. Mini Shaji Thomas, director, NIT, Tiruchirappalli congratulated the team.

'More industry-institute collaborations needed'

DC CORRESPONDENT
TIRUCHY, DEC 6:

Prof. G.D. Yadav, vice-chancellor, ICT, Mumbai has stressed the importance of academic fraternity and industrialists to collaborate and motivate the multi-disciplined research outcome which may largely benefit the basic needs of people of the country.

Prof. Yadav made this observation while inaugurating a three-day 'International Conference on Advances and Challenges for Sustainable Ecosystem (ICACSE-2018)' jointly organised by Technical Education Quality Improvement Program (TEQIP III) department of Science and Technology (DST), SERB, New Delhi, and department of Chemical Engineering NIT-T, here on Thursday.

Prof. Yadav also underlined the importance of academic fraternity and



Prof. Mini Shaji Thomas, Director NIT-T addresses the inaugural session of the three day International Conference in Tiruchy on Thursday.

-DC

industrialists to collaborate and motivate the multi-disciplined research outcome which may largely benefit the basic needs of people of the country.

He called upon the research community to concentrate more on reducing waste while generating beneficial products. "Transform waste into wealth with the help of systems engineering and sustainable routes," he urged. In her presidential

address, Dr. Mini Shaji Thomas, director, NIT-T, insisted on the importance of international conferences to induce mutual collaborations between industries and academicians to bring about the unnoticed research potential to light.

Among others, Prof. Meera S Begum, head, Chemical Engineering department, NIT-T, Dr P. Sivashanmugam, convener of the conference and others spoke.

3-day power systems meet begins at NIT-Tiruchy

R. VALAYAPATHY | DC
TIRUCHY, DEC 14:

Dr Saifur Rahman, president, IEEE Power & Energy Society (PES) and director, Advanced Research Institute, Virginia Tech, USA, on Friday called for stronger Industry-Institute interaction by providing a platform for researchers and engineers from academia, industry and public utilities to exchange their ideas and present solutions for actual and future problems.

Dr Saifur Rahman made this observation while inaugurating a three-day 20th National Power Systems Conference, (NPSC-2018) with the theme "Towards a Sustainable Energy Future through Efficient, Smart and Green Technologies", organised by the department of Electrical and Electronics Engineering, National Institute of Technology Tiruchirappalli (NIT-T) here on Friday.

Disclosing that India has the second largest IEEE membership next to the USA, he expressed the hope that this conference "will help us to solve solutions to existing power sector scenarios."

Releasing the conference souvenir, KVS Baba



Prof. Mini Shaji Thomas, director, NIT-T, presenting the memento to Dr Saifur Rahman, president, IEEE Power & Energy Society (PES) and Director, Advanced Research Institute, Virginia Tech, USA, during the inaugural session of the three-day 20th National Power Systems Conference, (NPSC-2018) at NIT-Tiruchy on Friday.

Chairman and managing director, Power System Operation Corporation (POSOCO) stressed the need to adopt energy conservation and environmental management. Speaking on the occasion, Prof. S.C. Srivastava, chairman, national core standing committee, NPSC, elaborated about the achievements of the department.

The NIT-T director, Prof. Mini Shaji Thomas in her address underlined the need "to aim our research toward a social motive, and the need to bind industries and institutes."

The Academic Excellence Award- 'NPSC 2018' was given to Prof. Bhim Singh, IIT-Delhi, while the 'Industry Excellence Award-NPSC 2018' was given to K. Rajamani, and chief consultant, M/s. Adani Electricity, Mumbai, Ltd. The 'Malaviya Excellence Award in Power System-2018' was given to Prof. S.C. Srivastava, IIT Kanpur.

Prof. C. Nagamani, general chair, 'NPSC-2018' welcomed the gathering while Prof. Kumaresan, convener 'NPSC-2018' proposed a hearty vote of thanks.

திருச்சியில் அஞ்சல் தலை கண்காட்சி



திருச்சி தலைமை அஞ்சலகத்தில் வெள்ளிக்கிழமை நடைபெற்ற சிறப்பு அஞ்சல் உறை வெளியீட்டு விழாவில் (இடமிருந்து) பணத்தின் சேகரிப்பு சங்கத் தலைவர் பி. விஜயகுமார், மத்திய மண்டல அஞ்சல் துறைத் தலைவர் அம்பேஷ் உபமன்யு, தேசிய தொழில் நுட்பக் கழக இயக்குநர் மினி ஷாஜி தாமஸ், அஞ்சல் துறை மத்திய மண்டல இயக்குநர் தாமஸ் லூர்துராஜ். அஞ்சல் துறை முதுநிலை கோட்ட கண்காணிப்பாளர் கணபதி சுவாமிநாதன்.

திருச்சி, நவ.30: திருச்சி தலைமை அஞ்சல் அலுவலகத்தில் அஞ்சல் தலை கண்காட்சி, மற்றும் ஒரு ரூபாய் பணத்தின் அறிமுகமாகி 100 ஆண்டுகள் நிறைவடைந்ததை யொட்டி சிறப்பு அஞ்சல் உறை வெளியீட்டு விழா வெள்ளிக்கிழமை நடைபெற்றது. விழாவில், சிறப்பு அஞ்சல் உறையை அஞ்சல் துறையின் மத்திய மண்டலத் தலைவர் அம்பேஷ் உபமன்யு வெளியிட்ட, திருச்சி தேசிய தொழில் நுட்பக்

கழக இயக்குநர் மினி ஷாஜி தாமஸ் பெற்றுக்கொண்டார். விழாவை முன்னிட்டு அஞ்சல் தலை கண்காட்சி நடைபெற்றது. இக்கண்காட்சியின் போது சிறந்த அஞ்சல் தலைகளை சேகரித்து வைத்திருந்த பன்னி மாணவ, மாணவிகளுக்கும், அதிகமான அஞ்சல் தலைகளை சேகரித்து வைத்திருந்தவர்களுக்கும் பரிசுகள் வழங்கப்பட்டன. கண்காட்சியில் அஞ்சல் தலைகளை வைத்திருந்த அனைவருக்கும் சான்றி

தற்களும் வழங்கப்பட்டன. விழா விற்கு திருச்சி மத்திய மண்டல அஞ்சல்துறையின் இயக்குநர் அ.தாமஸ்லூர் துராத் முன்னிலை வகித்தார். இதில், அஞ்சல்துறை திருச்சி கோட்ட கண்காணிப்பாளர் கணபதி சுவாமிநாதன், பணத்தின் சேகரிப்பு சங்கத் தலைவர் பி.விஜயகுமார் உள்ளிட்ட அஞ்சல்துறை அதிகாரிகள், பன்னி மாணவ,மாணவிகள் கலந்து கொண்டனர்.

தினமணி Sat, 01 December 2018
epaper.dinamani.com/c/34479483

14 என்ஜினியரிங் கல்லூரிகளுக்கு வழிகாட்டியாக திருச்சி என்.ஐ.டி.

திருச்சி, டிச.3- அகில இந்திய தொழில்நுட்ப கல்விக் குழுவால் 'மார்சுதர்ஷன்' எனும் திட்டம் தொடங்கப்பட்டது. இந்த திட்டத்தில் திருச்சி என்.ஐ.டி. 14 என்ஜினியரிங் கல்லூரிகளுக்கு வழிகாட்டும் நிறுவனமாக செயல்பட உள்ளது. இந்த திட்டத்தின் கீழ் ஆசிரியர் முன்னேற்ற திட்டம், தேசிய அளவிலான செயல்முறை கூடம், விருத்தினர் விரிவுரை மற்றும் தொழில்நுட்ப மேம்பாட்டிற்கான பல நிகழ்ச்சிகள் நடத்தப்பட உள்ளது. இதற்காக தொழில்நுட்ப கல்விக்குழு 3 ஆண்டுகளுக்கு ரூ.30 லட்சம் ஒதுக்கியுள்ளது. திருச்சி என்.ஐ.டி. இந்த திட்ட மேம்பாட்டிற்காக 600 லட்சம் மீட்டர் சுற்றளவில் 14 தொழில்

நுட்ப நிறுவனங்களை கண்டறிந்துள்ளது. இந்த திட்டத்தின் தொடக்கவிழா என்.ஐ.டி.யில் நடந்தது. இதில் தலைமை ஒருங்கிணைப்பாளர் சிவக்குமார், இணை ஒருங்கிணைப்பாளர் சரவணஇளங்கோ ஆகியோர் 'மார்சுதர்ஷன்' திட்டத்தின் சிறப்பம்சங்களை எடுத்துக்கூறினர். இயக்குநர் மினி ஷாஜி தாமஸ் சிறப்பு விருந்தினராக கலந்து கொண்டு பேசினார். விழாவில் என்ஜினியரிங் கல்லூரி முதல்வர்கள், கல்லூரி ஒருங்கிணைப்பாளர்கள் உள்பட பலர் கலந்து கொண்டனர். திருச்சி, புதுக்கோட்டை உள்ளிட்ட ஊர்களில் உள்ள 14 என்ஜினியரிங் கல்லூரிகளுக்கு வழிகாட்டியாக செயல்படும்.

Margdarshan scheme is an initiative by the All India Council of Technical Education NIT-Tiruchy granted status of 'mentor' institute

DC CORRESPONDENT
TIRUCHY, DEC 2

Margdarshan (Share and Mentor Institutions) scheme is an initiative by the All India Council of Technical Education (AICTE) designed to implement the 'hub and spoke' model. In this scheme, National Institute of Technology, Tiruchirappalli (NIT-T) has been granted the status of 'mentor' Institute to serve as the hub to guide and disseminate knowledge to the 'mentee'



Dr. Mini Shaji Thomas, director, NIT-T address the gathering. On her left is Dr. N. Sivakumaran, chief coordinator and on right Dr. G. Saravanalingo, co-coordinator.

institutions as 'spoke'. An NITT release said at Tiruchy on Sunday that the purpose of the scheme is to conduct programmes like faculty development programmes, three-day national level workshops, guest lectures and other activities for the technical uplift of the member-institutions in terms of teaching-learning process. In this regard, the Council has sanctioned a grant of ₹30.00 lakh under this project for a duration of three years, it said.

The mentor institute has

identified 14 accredited technical institutions for this programme. As a part of the formal launch of the scheme, workshop on the Implementation of 'Margdarshan scheme' (AICTE) for 'mentee institutions' was conducted here on Friday.

Dr N. Sivakumaran, chief coordinator and Dr G. Saravana Ilango, co-coordinator, briefed about the 'Margdarshan' scheme and its implementation to the principals and senior professors of the mentee insti-

tutions. Dr Mini Shaji Thomas, director, NIT-T in her address emphasised her institute's endeavor to contribute towards improvement of technical education.

She further said that this scheme will help to motivate the students to come up with innovative ideas and projects and widen the exposure to the prototype development on enhanced educational standards and research aptitude, the release added.

தேசிய தொழில் நுட்பக் கழகத்தில் மின்சக்தி மாநாடு தொடக்கம்

திருச்சி, டிச. 14: திருச்சி, தேசிய தொழில்நுட்பக் கழகத்தில், மின் மற்றும் மின்னணு பொறியியல் துறை சார்பில், 20-ஆவது மின்சக்தி மாநாடு வெள்ளிக்கிழமை தொடங்கியது.

ஆற்றல் கொண்ட, திறம் வாய்ந்த பகைமைத் தொழில் நுட்பங்கள் மூலம் நிலையான எதிர் காலத்தை நோக்கிச் செல்லுதல் என்ற மையக் கருத்தில் நடைபெறும் இந்த மாநாட்டை மின்னியல் மற்றும் மின்னணுவியல் பொறியாளர் கழகத்தின் மின்சக்தி, மின்னாற்றல் அமைப்பின் தலைவர் டாக்டர். சாய்புர ரகுமான் தொடங்கி வைத்து பேசினார்.

அதைத் தொடர்ந்து தேசிய தொழில்நுட்பக் கழக இயக்குநர் டாக்டர் மினி ஷாஜி தாமஸ் பேசையில், கல்வி நிறுவனங்களையும், தொழில் நிறுவனங்களையும் ஒருங்கிணைப்பதன் முக்கியத்துவத்தையும், சமூக நலனைக் கருத்தில் கொண்டு ஆராய்ச்சிகள் மேற்கொள்வதன் முக்கியத்

தவம் குறித்து பேசினார். மின்சக்தி அமைப்பு செயல்பாட்டுக் கழகத்தின் தலைவரும் மேலாண்மாளரும் கே.வி.எஸ். பாபா, மின்சக்தி சேமிப்பு, சுற்றுமூலம் மேலாண்மை குறித்து பேசினார். தேசிய குழுத்தலைவர் பேராசிரியர் ஸ்ரீவத்சுவா என்பி.எஸ்.சி. அவைப்பின் சாதனைகள் குறித்து உரையாற்றினார்.

நிகழ்ச்சியில், என்.பி.எஸ்.சி-2018 கல்வியியல் சிறப்பு விருது டெல்லி ஐஐடி. பேராசிரியர் பிம்சிங்கிற்கும், தொழில்துறை சிறப்பு விருது மும்பை அதானி மின் நிறுவனத்தின் முதன்மை ஆலோசகர் கே. ராஜாமணிக்கும் வழங்கப்பட்டது. 2018ம் ஆண்டின் மின்னாற்றல் அமைப்பு மாணவியா சிறப்பு விருது ஐஐடி. கான்புரைச் சேர்ந்த பேராசிரியர் ஸ்ரீவத்சுவாவுக்கும் வழங்கப்பட்டது.

முன்னதாக, மாநாட்டின் ஒருங்கிணைப்பாளர் பேராசிரியர் நாக மணி வரவேற்றார், குமரேசன் நன்றி கூறினார்.

தினமணி Sat, 15 December 2018
epaper.dinamani.com/c/34894379

Utilise Centres of Excellence

NIT-T's appeal to industries

SPECIAL CORRESPONDENT
TIRUCHI

The Research and Consultancy Wing of National Institute of Technology - Tiruchi (NIT-T) initiated a discussion with representatives of Confederation of Indian Industry, Tiruchi Zone, on Tuesday with the idea of throwing open state-of-art common facility centres on its campus to small, medium and large industries.

Over 60 participants were exposed to the utilities they could derive from the Siemens Centre of Excellence that was inaugurated earlier this year by Union Human Resource Development Minister Prakash Javadekar, the Centre of Excellence in Corrosion and Surface Engineering (CE-CASE), Centre for Excellence in Energy and Environmental Science and Technology (CESSAT) and various departmental laboratories.

The Siemens Centre of Excellence was involved in executing a consultancy project valued at ₹1.2 crore for BHEL, NIT-T Director Mini Shaji Thomas said.

Presiding over the meeting, Mini Shaji Thomas hoped that the industry-institute link will reflect in accelerated research and consultancy activities in the



A.S. Ananthakrishnan, Chairman, CII, Tiruchi zone, discussing a point on Tuesday.

A.S. Ananthakrishnan, Department Chairman, CII, Tiruchi Zone, and an alumnus of 1990 batch of Production Engineering students, recounted how his venture CEEYES Engineering Industries PVT. Ltd took shape with support of his teachers. M. Umapathy, Dean - Research and Consultancy, NIT-T, assured sustained research and consultancy support for industries in the region. A.R. Syed Arif, Vice Chairman, CII, Tiruchi Zone, and Managing Partner, Five Star Industries, also took part in the discussion along with several other delegates.

NITT bags second prize at India-Singapore Hackathon 2018

Tiruchi, Nov. 17: National Institute of Technology Tiruchirappalli (NITT) team comprising Kartik Venkataran (fourth year Computer Science Engineering), Deep Bhattacharya (fourth year Computer Science Engineering) and D. Arutselvan (fourth year Electronics and Communication Engineering) with Dr. Rajeswari Sridhar, Associate Professor and Head of Department of Computer Science, as the mentor won the overall second prize, including \$5,000 Singapore Dollars, in the recently concluded

India-Singapore Hackathon 2018, according to an official press release.

Singapore's Nanyang Technological University and India's Ministry of Human Resource Development's (MHRD) Innovation Cell organized the Singapore-India Hackathon-2018 under the theme "Solution for Humanity". NITT was among the 20 Indian teams that participated in the event and won the overall second prize for building an effective learning platform based on crowd sourcing and live chat for expert in-

teraction in a Neuro-Linguistic Processing engine.

The learning platform can tag topics to summarize the concepts in the form of mind maps and give recommendations for prerequisites and related topics with links to resources. Prime Minister Narendra Modi presented the awards to the winning teams of the India-Singapore Hackathon 2018 on November 15.

The High Commission of India in Singapore facilitated the event in collaboration with Ministries of Education and Foreign Affairs of Sin-

gapore. Problems posed to the teams were in the areas of mapping, synchronizing the output of diverse social media and shared digital identity verification.

The Indian teams were selected based on a screening process by the MHRD after which they underwent a two-day orientation at IIT Bombay before their departure to Singapore in order to equip themselves for the Hackathon. NITT Director Prof. Mini Shaji Thomas congratulated the team, the press release added.

NIT throws open doors to industry for R&D, testing

EXPRESS NEWS SERVICE
@Tiruchy

NIT-Tiruchy has opened avenues for local industry for testing, research and consultancy needs. The initiative was enabled by Confederation of Indian Industry (CII) on Tuesday.

Dean of the department of Research and Consultancy, M Umapathy said industries can directly approach NIT-Tiruchy with their technological challenges.

CII-Tiruchy chairman A S Ananthakrishnan said NIT-Tiruchy with its 91 labs and four Centres of Excellence (COEs) distributed among 11 departments can be utilised to cater to many of industry's needs. COEs are research spaces installed jointly with important industries, the most recent one being set up in cooperation with Siemens.

Ananthakrishnan said many industries lacked research and development facilities and NIT could help overcome the short coming.

NIT-Tiruchy Director Mini Shaji Thomas expressed optimism that opening up the facilities to local industries will bring more innovations. She added that ties like these may help research see the light of day. The facilities provide qualitative testing, material fabrication and manipulation.

'Green chemistry will help in lowering waste, by-products'

TIMES NEWS NETWORK

Tiruchy: The 'green chemistry' concept will play a major role in the future as it is of utmost importance to minimise waste and unwanted by-products, said G D Yadav, vice-chancellor of Institute of Chemical Technology (ICT), Mumbai, here on Thursday.

Yadav was speaking at the inaugural session of International conference on the advantages and challenges for sustainable ecosystem at NIT, Tiruchy.

Green chemistry involves designing chemical products and processes that reduce or eliminate the use or generation of hazardous substances. As examples, Yadav said



ALTERNATIVE ENERGY: G D Yadav (second from right) at the inaugural session of International conference on the advantages and challenges for sustainable ecosystem at NIT, Tiruchy

carbon dioxide sequestration (extracting and storing carbon dioxide emissions to prevent its release into the atmosphere), improving biomethanol production, hydrogen energy and solar-based transportation would play a major role in the future.

Addressing the crowd, Yadav said implementing green

chemistry principles would go a long way in terms of minimising waste and reducing unwanted by-products.

He also stressed on the importance of collaboration between the academic fraternity and industrialists on a multi-disciplined research outcome, which may largely benefit the basic needs of people in

the country. "Wasting not less of food may leave millions in hunger. The challenges for India largely lie in developing basic sanitation, food, infrastructure, providing clean and accessible water source and attaining satisfactory energy generation through renewable resources," he added. He urged the research community to concentrate more on reducing waste while generating beneficial products.

ICACSE - 2018, which would be held till December 8, is being organised by the Department of Chemical Engineering at NIT-T, focussing on various trends and challenges to advance the technological aspects of chemical plants, development of advanced/novel functional materials and processes.

Three-day conference on sustainable ecosystem begins at NIT

EXPRESS NEWS SERVICE @ Tiruchy

POINTING out that a majority of scientific research in our country does not turn into products or applications but remain in the academic world, GD Yadav, Vice-Chancellor of Institute of Chemical Technology, Mumbai, said more efforts were needed to bring down this phenomenon. He suggested that all researchers should 'patent, publish and prosper' while speaking at the inauguration of an international conference in NIT Tiruchy on Thursday. The event is jointly organised by Technical Education Quality Improvement Program (TE-

QIP III) and Department of Science and Technology (DST), Government of India.

The conference of advances and challenges for sustainable ecosystem was organised by the Chemical Engineering department of NIT-T. More than 100 delegates from various institutes, both national and international, will be taking part in the three-day event (December 6-8). As many as 150 papers on sustainable interdisciplinary technology will be presented during the conference.

In his address, Yadav put forth challenges such as controlling the temperature to 1.5 degree celsius globally as rec-

ommended by United Nations, the need of having to feed 25 billion meals per day by 2025, to eradicate poverty among others. He reiterated that scientific innovation, waste management and looking into non-conventional energy resources were plausible solutions.

The vice-chancellor stressed on sustainability, interdisciplinary and collaborative efforts. Yadav alluded to sustainability in farming and chemical processes like sulphuric acid synthesis, where there was scope in producing useful products from what is conventionally considered a waste.



G D Yadav Vice Chancellor, ICT Mumbai, and Mini Shaji Thomas, Director, NIT-T, releasing a souvenir at the conference on Thursday | EXPRESS

Fri, 07 December 2018
epaper.newindianexpress.com/c/34654347

என்னுடைய தொழில் முனைவோர் பயிற்சி முகாம்

திருச்சி, நவ. 27: திருச்சி, என்னுடைய தொழில் முனைவோர் மேம்பாடு மற்றும் காப்பகம் சார்பில், தொழில் முனைவோருக்கான பயிற்சி முகாம் நிறைவு நிகழ்ச்சி திங்கட்கிழமை நடைபெற்றது.

கடந்த 6 வாரமாக நடைபெற்ற முகாமிற்கு ஆமதபாத்தில் உள்ள இந்திய தொழில் முனைவோர் மேம்பாட்டு நிறுவனம் நிதி உதவி அளித்திருந்தது. தொழில்நுட்பம் சார்ந்த உற்பத்தி மற்றும் சேவை துறை தொடர்பான அனைத்து தொழில் முனைவோர்களுக்காக பிரத்யேகமாக நடைபெற்ற இந்த முகாமில் ஏராளமான இளைஞர்கள் பங்கேற்றனர்.

இந்த பயிற்சியில் பங்குபெற்ற கல்லூரி பேராசிரியர் சக்திவேல் பேசுகையில், இந்த பயிற்சி தொழிலை தொடங்க நல்ல வழிகாட்டியாக உள்ளது என்றார்.

இவர் 2இ தொழில் நுட்பத்தில் குறிய ஒளி

யில் மின்சாரம் தயாரிக்கும் புதிய தொழில் நுட்பத்தை உருவாக்கியவர் என்பது குறிப்பிடத்தக்கது.

இப்பயிற்சியில் பங்கேற்ற கஜலட்சுமி மற்றும் கார்த்திக் என்ற இருவரும், இப்பயிற்சி திட்டமிட்டு அவர்களது பொருள்களை சந்தைப்படுத்த உதவும் என்றனர். இவர்கள் இயற்கை மூலப் பொருள்களை கொண்டு கசாதார நாப்கின்கள் தயாரிப்பில் ஈடுபட்டுள்ளனர். இறுதியாக என்னுடைய இயக்குநர் முனைவர் மினி ஷாஜி தாமஸ் கூறுகையில், கல்லூரியின் அனைத்து வசதிகளையும், உதவிகளையும் தொழில்முனைவோர் பயன் படுத்திக்கொள்ளலாம். மேலும் இது போன்ற பயிற்சி முகாமில் பங்கேற்கும் தொழில் முனைவோர், தேவையான திறமைகளை வளர்த்துக்கொண்டு மேலும் ஏராளமானோருக்கு வேலைவாய்ப்புகளை உருவாக்க வேண்டும் என்றார்.

'Strong interaction between industry and institute is vital for growth'

TIMES NEWS NETWORK

Tiruchy: Sufur Rahman, president of Institute of Electrical and Electronics Engineers (IEEE), Power & Energy Society (PES) and director of Advanced Research Institute, Virginia Tech, USA, on Friday, said that a strong industry-institute interaction by providing a platform for academic researchers and engineers is important for growth.

Speaking at the inauguration of the 20th national power systems conference held at the National Institute of Technology Tiruchy (NITT), on the topic - A smart city and its attributes - he said that solutions could be found for present and fu-



SMART MINDS: Sufur Rahman (second from right), president of IEEE, attends the 20th national power systems conference held at the National Institute of Technology Tiruchy on Friday

ture problems by exchange of ideas. He said India has the second largest IEEE membership next to the USA. IEEE members need to address societal needs with their contributions, he said.

Rahman said the conference will help to give solutions to existing power sector scenarios while stressing on the importance of smart grid in the present power sector.

ji Thomas spoke about the need to aim their research towards a social motive and the need to build industry-academy institutes. K V S Babu, chairman and managing director, Power System Operation Corporation (PSOC) shared his views on energy conservation and energy management.

During the conference, academic excellence award-PSOC was given to Ram Singh, IIT Delhi. Industry excellence award-PSOC was given to K. Rajeswari, chief consultant, Adani Electricity Mumbai. The conference was attended by eminent academicians, faculty members and students from technical and educational institutions.

Wed, 05 Dec
epaper.newindianexpress.com

NOVEMBER/DECEMBER 2018
ISSUE 4



PUBLISHED BY
PUBLIC RELATIONS AND MEDIA CELL

This newsletter is published
bi-monthly

COMPILED BY: DR. K.N. SHEEBA

EDITED BY: DR. S. ARUL DANIEL,
DR. VINOD BALAKRISHNAN

DESIGNED BY:

VARSHA BONAM
SATHWIK KUMAR
ABHISHEK SURADA

NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI
TAMIL NADU, INDIA- 620015,
INSTITUTE : +91-431-2503000 / 2504000
FAX : +91-431-2500133
WEBSITE : <http://www.nitt.edu>
EMAIL: mint@nitt.edu

Feedback: newsletter@nitt.edu