

A Two-day International conference on

“FUNCTIONAL AND SMART MATERIALS”

07th & 08th February, 2025

The Departments of Physics, Chemistry, and Electronics, KBN College, in collaboration with the Andhra Pradesh State Council of Higher Education (APSCHE), successfully organized a Two-Day International Conference on "Functional and Smart Materials" on 07th & 08th February, 2025. The event aimed to bring together scientists, researchers, academicians, and industry experts to discuss the latest advancements and applications in functional and smart materials. Around (number of participants), including faculty members, research scholars, and students, actively participated in the conference.

The conference commenced with an inaugural address by Dr. G. Krishnaveni, Principal, KBN College, who emphasized the significance of smart materials in shaping future technologies. The Guest of Honour, Dr. V. Narayana Rao, AO, SKPVV Group of Institutions, highlighted the interdisciplinary nature of smart materials research and its growing importance in various scientific fields.

The Chief Guest, Prof. BLV Prasad, Director of CeNS, Bangalore, delivered a keynote address, providing valuable insights into recent breakthroughs in functional and smart materials and their applications in cutting-edge technologies. A key highlight of the event was the release of the Conference Abstract Book (ISBN: 978-81-983232-4-8), containing insightful research contributions from distinguished presenters. The book release ceremony was conducted with enthusiasm and was graced by eminent dignitaries on the dais.

The conference featured technical sessions, expert talks, and paper presentations, fostering knowledge exchange and discussions on emerging trends in materials science, nanotechnology, electronics, and related fields.

The culmination of the Two-Day International Conference on "Functional and Smart Materials" was marked by engaging discussions, networking opportunities, and valuable collaborations. The event concluded with a vote of thanks by Dr. K. Kiran Kumar, Director, R&D Cell, who expressed gratitude to the organizing committee, guest speakers, and participants for their efforts in making the conference a resounding success.



Prayer Song by

P. Padmalatha-II M.Sc Chem.

K. Ravitreyani – I M.Sc Chem.

R. Yogeswari – II B.Sc Chem.



Lighting the Lamp by the Guests



ISBN Book Released by the Guests on the Dais



Felicitation to the Chief Guest Prof. B.L.V. Prasad



Felicitation to the Guest of honour Prof. N. Eswara Prasad

CHIEF PATRONS

Dr. T. Srinivasu,
Secretary & Correspondent,
K.B.N. College (Autonomous)
Dr. V. Narayana Rao,
Administrative Officer,
SKPVV Hindu High Schools' Committee

PATRON

Dr. G. Krishnaveni,
Principal,
K.B.N. College (Autonomous)

ORGANIZING SECRETARY

Dr. K. Kiran Kumar, Director, R&D Cell,
K.B.N. College (Autonomous)

CONVENOR

Dr. V. Ravi Kumar, Assoc. Prof., K.B.N. College (Autonomous)
Dept. of Physics and Electronics

ADVISORY COMMITTEE

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Dr. D. Rama Sekhara Reddy, Asst. Prof., Dept. of Chemistry, Krishna University
Prof. N. Veeralah, Itd. prof, Acharya Nagarjuna University
Prof. V. Ravi Kumar, Acharya Nagarjuna University
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Dr. M. Venkateswara Rao, Vice-Principal, KBN College
Dr. K. Ramakrishna, Vice-Principal, KBN college

ORGANISING COMMITTEE

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Department of Physics & Electronics
Sri. R. Uday Kumar
Ms. B. Sruthi
Sri. A.H.D. Prakash

For further Details Contact

Dr. V. Ravi Kumar, Ph: 9000397338
Dr. K.Kiran Kumar, Ph: 9440924980

Student Co-ordinators

T. Vijay Durga Rao, M.Sc OCH, IInd Year
D. Dhanalakshmi, M.Sc OCH, IInd Year

RESOURCE PERSONS



Chief Guest & Keynote Speaker
Prof. B. L. V. Prasad
Director of the Centre for Nano and
Soft Matter Sciences (CNS), Bangalore



Prof. N. Eswara Prasad
Director, R & D, MOET, Professor
Dept. of MEM, MOET/CSS
Hyderabad-500075



Prof. hab. M.G. Brik
Institute of Physics
University of Tartu
W. Ostwald Str 1, Tartu 50411, Estonia



Prof. hab. Michal Piasecki
Institute of Physics, Jan Dlugosz University
Czestochowa, Poland,



Dr. sc. Luka Pavić
Senior Research Associate
Ruđer Bošković Institute
Croatia



Prof. C. Subrahmanyam
Dept. of Chemistry
IIT, Hyderabad



Prof. Y. Srinivasa Rao
Department of Electronics and
Telecommunication Engineering
Dr. Sardar Patel Institute of Technology, Mumbai

A TWO DAY INTERNATIONAL CONFERENCE ON FUNCTIONAL AND SMART MATERIALS

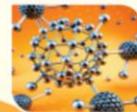
(ICFSM - 2k25)



In collaboration with
APSCHE



(Andhra Pradesh State Council of Higher Education)



07th & 08th February, 2025

Organized by

Departments of Physics, Chemistry & Electronics

ISO 9001-2015 CERTIFIED

NAAC 'A++' GRADE CYCLE 4

KAKARAPARTI BHAVANARAYANA COLLEGE

(Sponsored by S.K.P.V. Hindu High Schools' Committee) (AUTONOMOUS)
Kathapeta, Vijayawada - 520 905.

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www.kbncollege.ac.in

About the College

Kakaraparti Bhavanarayana College is a vivacious outcome of a century old renowned charitable organization, S.K.P.V. Hindu High Schools Society with 'Tejaswini Vaidheethamosthu' as its motto. Since its inception in 1955, it marked an epoch in innovative education, in an academically and economically impoverished area. The college with heightened social imagination and ardent zeal, shone like a lodestar innumerable students towards the goal of an illustrious life. The ever vibrant college grew by leaps and bounds and has evolved with times. It has been adorned with the Autonomous status by the UGC in the year 2003, and received "Best Laboratory", "Best Academic Achievement", "Best Library", "Best NSS Unit" awards. The College has never rested on its laurels and has been relentlessly raising the bar. It has been re-accredited with "A++" Grade by NAAC in 2024.

About Departments

About the Physics & Electronics Department: The Department of Physics was established in 1955, it holds a distinguished reputation for its outstanding contributions to academia and society. Over the years, it has nurtured and produced numerous accomplished scholars, administrators, scientists, physicists, mathematicians, chemists, and other luminaries across diverse fields. The Department takes pride in its collection of rare and exclusive scientific instruments, including an Astronomical Telescope, enabling detailed observation of celestial bodies. Another highlight is a fully functional working model of the Super Heterodyne Radio Receiver, offering a clear understanding of electronic components and principles.

Recognized for its excellence, the Department has been designated a Model Department by Andhra University. A significant milestone was achieved in 2023 with the introduction of the B.Sc. (HONOURS) Electronics and B.Sc. (HONOURS) Physics course, marking a new chapter in its illustrious history. Students consistently demonstrate their expertise through research publications and innovative live projects, particularly during National Science Day celebrations and various competitions, showcasing the Department's commitment to fostering talent and scientific curiosity.

About the Chemistry Department:

The Department of Chemistry was established in the year 1955. The Chemistry Department is a vibrant and dynamic academic unit dedicated to the study and advancement of chemistry. The department offers B.Sc Honours in Chemistry, M.Sc Organic Chemistry and M.Sc Analytical Chemistry programs and it has research centre recognised by Krishna University along with three supervisors. The Department boasts a team of highly qualified and experienced faculty members. The Chemistry Department is equipped with state-of-the-art laboratories that provide students with hands-on experience in conducting experiments and research. The department actively promotes research and encourages students to engage in research projects.

About the Conference

A Two day International conference on Functional and Smart materials at KBN College in Vijayawada is set to provide a valuable platform for collaboration and knowledge –sharing in the rapidly advancing fields of functional and smart materials. Here are the potential scope and outcomes for the conference

1. Emerging trends and Research: Explore the latest development in the functional and smart materials, including nano materials, metamaterials, smart polymers, shape memory alloys, and Bio-inspired materials.
2. Applications Across Fields: Discussions on the application of these materials in diverse sectors such as biomedicine, electronics, energy, environmental science, and aerospace.
3. Interdisciplinary Approach: Foster cross-disciplinary interaction by involving experts from Physics, Chemistry, electronics, material science, and engineering encourage integrative solutions.
4. Global Perspectives: With Scientists from India and Abroad, the conference will present a wide array of global advancements and facilitate discussions on region – specific challenges and innovations in smart materials.
5. Sustainability and Green Materials: Examine the role of sustainable smart materials in environmental protection and green technology, addressing the rising demand for eco-friendly solutions.

Sub Themes

- Nano Materials
- Sensitive Materials
- Optical Materials
- Photo Electric
- Smart Gels
- Shape Memory Alloys
- Magnetostrictive Materials
- Piezoelectric Materials
- Thermoelectric Materials
- Optics and Lasers
- Glass and Ceramics
- Crystallography
- Thin Film Coatings
- Applications of functional Materials
- Fullerences
- Biomimetic Materials

Call for Papers

We invite researchers, Scholars, Academicians and Professionals to submit their original research papers in and around functional and smart materials

Instructions to Authors

Accommodation: Accomodation will be provided to participants on prior intimation and on payment.

Guidelines for Abstract Submission:

The abstract of the paper should be typed in MS Word using the New Roman with font size 12. The abstract should not exceed 250 words. It should be submitted as e-mail attachment to the contact address.

Full length paper:

Manuscript should be containing Title, Authors, Affiliation, Abstract, Keywords, Introduction, Experimental, Results and Discussion, Conclusion, Acknowledgment and References.

Publications: Selected papers will be published in **Materials today Proceedings (ELSEVIER)** or **Springer journal**.

Email ID for the submission of the abstracts and full length papers: icfsm2k25@gmail.com

Important Dates

- For Abstract Submission on or before: **10th January, 2025**
- For Full Paper Submission on or before: **30th January, 2025**
- For Registration on or before: **1st February, 2025**

Registration Fees

UG / PG Students (Per Student)	₹ 500
Faculty / Research Scholars	₹ 1000
Industrialists	₹ 2000
Foreign Participants	\$ 30

Bank details

Account Name : Principal, KBN College
Account Number : 1414155000114010
Bank Name : Karur Vysya Bank Ltd.
Branch : One Town, Vijayawada
IFSC Code : KVB10001414

Registration Form link:

<https://forms.gle/etwtf5Tvzz52bdXXH8>

Registration Fees include

- Seminar kit
- Lunch and Refreshments
- Participation certificate



Invitation



ISO 9001-2015 CERTIFIED

NAAC 'A++' GRADE CYCLE 4

K.B.N. COLLEGE



(AUTONOMOUS)

(Sponsored by S.K.P.V.V.Hindu High Schools' Committee)
Kothapeta, Vijayawada-520 001.

A TWO DAY INTERNATIONAL CONFERENCE ON FUNCTIONAL AND SMART MATERIALS (ICFSM - 2k25)



In collaboration with

APSCHE

(Andhra Pradesh State Council of Higher Education)

07th February, 2025 @ 9.30 a.m.

Venue: Reading Room

CHIEF GUEST



Prof. B. L. V. PRASAD

Director of the Centre for Nano and
Soft Matter Sciences (CeNS), Bangalore

Organized by

Departments of Physics, Chemistry & Electronics

Day-1

Session -1: Keynote Address by Prof. B.L.V. Prasad (Director of the Centre for Nano and Soft Matter Sciences (CeNS), Bangalore)

Prof. B.L.V. Prasad Garu delivered an insightful keynote talk on "What to do with our research work that we could not take it further as we originally thought?" He addressed the challenges researchers face when their projects do not progress as initially planned and provided strategies to repurpose, adapt, and extract value from such work.

The session focused on alternative approaches to utilizing stalled research, including interdisciplinary applications, refining hypotheses, and seeking collaborations. Prof. Prasad emphasized the importance of revisiting data, identifying hidden insights, and leveraging emerging technologies to breathe new life into existing work.

He also discussed the role of patenting, publishing, and industry partnerships in ensuring that research efforts contribute meaningfully to science and society. Through case studies and real-world examples, he illustrated how scientific setbacks can be transformed into new opportunities for discovery and innovation. His talk provided a fresh perspective on research resilience, adaptability, and the continuous pursuit of knowledge.



Session-2: Prof. N. Eswara Prasad Garu (*Director, R&D, MGIT & Professor, Dept. of Metallurgical & Materials Engineering, MGIT/CBES, Hyderabad-500075*)

Prof. N. Eswara Prasad Garu presented "Fundamentals, Processing, and Applications of Functional and Engineering Materials." Topics covered included the core principles of material science, microstructure-property relationships, advanced material processing techniques, and their impact on industrial applications.

The discussion extended to additive manufacturing, alloy design, nanostructuring, and their role in enhancing material performance. Prof. Prasad elaborated on applications of functional materials in aerospace, automotive, biomedical, and electronic industries. He also highlighted challenges in material sustainability, durability, and performance optimization, emphasizing the need for interdisciplinary research and industry collaboration.



Session-3: Talk by Dr. Luka Pavic (*Senior Research Associate, Ruđer Bošković Institute, Croatia*)

Dr. Luka Pavic presented a talk on "Electrical Transport in Functional Materials with Disordered Structure: A Case Study of Phosphate-Based Glasses." He discussed the unique electrical properties of disordered materials, focusing on phosphate-based glasses and their role in advanced technological applications.

The session covered mechanisms of charge transport, conductivity variations, and the influence of structural disorder on electronic properties. Dr. Pavic elaborated on experimental techniques used to study these materials, including impedance spectroscopy and conductivity measurements.

He highlighted potential applications in energy storage, optoelectronics, and bioelectronics, emphasizing the importance of understanding disorder-induced effects on material performance. The talk provided valuable insights into the challenges and future prospects of functional glassy materials in modern engineering and technology.

The slide, titled "(Micro)structure and DC conductivity – MGNF effect", details the composition and properties of a base glass system. The base system is $\text{Na}_2\text{O}-\text{P}_2\text{O}_5-\text{Nb}_2\text{O}_5$ with $\text{Nb}_2\text{O}_5 \uparrow$ and $\text{P}_2\text{O}_5 \downarrow$. Additions include V_2O_5 (with low and medium content), Al_2O_3 , and ZnO . A graph shows $\log(\sigma_{DC})$ vs. $x(\text{Nb}_2\text{O}_5)$ mol.%. A 10 V_2O_5 series plot shows conductivity vs. $x(\text{V}_2\text{O}_5)$ mol.%. Micrographs compare "glass" and "glass-ceramic" structures. A video feed of Dr. Luka Pavic is visible on the right.

- Determination of glass-forming region
- Partially crystallized samples formed by spontaneous crystallization upon cooling (high Nb_2O_5 content)

Session-4: Talk by Prof. C. Subrahmanyam (*Department of Chemistry, IIT Hyderabad*)

Prof. C. Subrahmanyam delivered an insightful talk on "Metal Plasmonic Nanostructures for Green Hydrogen Production by Photoelectrochemical Cells." He discussed the significance of metal plasmonic nanostructures in improving solar-driven hydrogen production, highlighting their role in enhancing light absorption, charge separation, and catalytic efficiency.

The session covered photoelectrochemical (PEC) water splitting, plasmonic resonance effects, and the role of nanomaterials such as gold, silver, and transition metal-based catalysts in boosting PEC performance. He elaborated on how surface plasmon resonance (SPR) can be tuned to optimize energy conversion, leading to more efficient hydrogen evolution reactions (HER).

Prof. Subrahmanyam also discussed challenges such as material stability, cost-effectiveness, and large-scale implementation of PEC-based hydrogen production technologies. He emphasized the need for interdisciplinary research integrating nanotechnology, electrochemistry, and materials science to achieve breakthroughs in sustainable energy. His talk provided valuable insights into the future of plasmonic nanostructures and their potential to revolutionize green hydrogen production.



Day-2

Session-1: Dr. Y. Srinivasa Rao (*Department of Electronics and Telecommunication Engineering, Dr. Sardar Patel Institute of Technology, Mumbai*)

Dr. Y. Srinivasa Rao delivered an insightful talk on "Advancing Product Development and Ensuring Security." He emphasized the critical role of technology-driven innovation in modern product design, focusing on efficiency, reliability, and security.

The session covered key aspects of product lifecycle management, including rapid prototyping, embedded systems, IoT-enabled solutions, and smart manufacturing. Dr. Rao highlighted the growing need for cybersecurity in product development, addressing vulnerabilities, encryption techniques, and secure communication protocols.

He discussed the integration of artificial intelligence and machine learning in enhancing security frameworks, enabling real-time threat detection and prevention. Case studies on secure applications in healthcare, defense, and telecommunications provided practical insights into industry best practices. He also stressed the importance of interdisciplinary collaboration, regulatory compliance, and ethical considerations in developing cutting-edge, secure, and sustainable technological solutions. His talk provided a comprehensive overview of the challenges and future directions in secure product development.

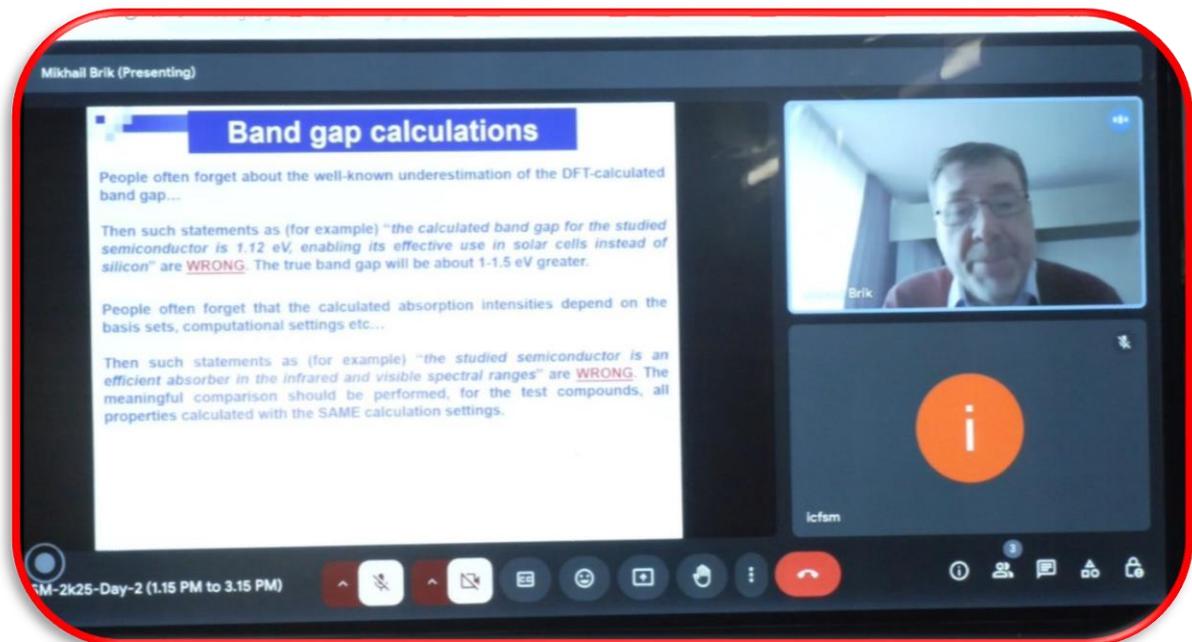


Session-2: Prof. M.G. Brik (*Institute of Physics, University of Tartu, W. Ostwald Str 1, Tartu 50411, Estonia*)

Prof. M.G. Brik delivered an enlightening talk on "Impurity Ions in Solids: Theoretical Modeling of Optical Properties." He discussed the impact of impurity ions on the electronic structure and optical behavior of various solid-state materials.

The session covered theoretical approaches to modeling impurity-induced modifications in luminescent materials, semiconductors, and laser crystals. Prof. Brik elaborated on how computational techniques such as density functional theory (DFT) and crystal field analysis aid in predicting and optimizing optical properties.

He highlighted the role of impurity ions in tuning emission spectra, enhancing photoluminescence efficiency, and developing advanced optical materials for laser, display, and sensing applications. The talk also explored the influence of charge states, energy level transitions, and host-impurity interactions on material performance. Prof. Brik emphasized the importance of combining experimental and theoretical studies to design next-generation functional materials, providing valuable insights into the future of optoelectronic and photonic technologies.



Valedictory

The valedictory session commenced with a welcome address by **A.H.D.Prakash**, Dept. of Physics & Electronics expressing gratitude to all participants, speakers, and organizers for their contributions to the success of the Two-Day International Conference on Functional and Smart Materials.

Dr. V. Ravi Kumar, Convener of ICFSAM-2k25, provided a brief report on the conference, summarizing the key discussions, innovations, and breakthroughs shared by the eminent speakers. The session was further enriched by **Dr. G. Krishnaveni**, Principal of KBN College, who delivered the President's Conclusion Remarks, emphasizing the role of advanced materials in scientific and technological progress.

The chief guest, **Prof. Y. Srinivasa Rao**, Department of Electronics & Telecommunication Engineering, Dr. Sardar Patel Institute of Technology, Mumbai, addressed the gathering, highlighting the importance of functional materials in engineering and research applications. Following the addresses, the dignitaries on the dais took part in the prize distribution for the poster presentation winners, acknowledging outstanding research contributions. Additionally, certificates were distributed to all participants as a token of appreciation for their active engagement in the conference.

The session concluded with feedback from the participants, sharing their experiences and insights gained from the event. **Dr. O. Sailaja**, Head of the Department of Chemistry, delivered the vote of thanks, appreciating the collective efforts of the organizing committee, speakers, and attendees in making the conference a grand success.





Certificate Distribution to the Participants with Chief Guest



Felicitaton to the Chief Guest Prof . Y .Srinivasa Rao

Nano Technology for a Brighter Future: Scientist B.L.V. Prasad



DECCAN FREEDOM NEWS
Vijayawada West

Nano technology is revolutionizing various sectors with a focus on public welfare, promising a brighter future, said renowned scientist and Director of the Center for Nano and Soft Matter Sciences, Bengaluru, Prof. B.L.V. Prasad. Speaking at the International Conference on Functional and Smart Materials, organized jointly by the Electronics, Physics, and Chemistry departments of KBN College in collaboration with the Andhra Pradesh Higher Education Council, he emphasized nano technology's role in agriculture, healthcare, climate research, defense, and communications.

India currently holds the third position globally in nano technology usage. He noted that nano innovations have significantly boosted India's agricultural sector, but more government funding is needed for research. He elaborated on the production and applications of nano

materials.

Prof. C. Subrahmanyam from IIT Hyderabad discussed Metal Plasmonic Nano Structures for Green Hydrogen Production through Photoelectrochemical Cells. Dr. N. Es-hwar Prasad from Mahatma Gandhi Institute of Technology, Hyderabad, spoke on functional and engineering materials in the defense sector. Dr. Luka Pavic, Senior Research Associate at Rudjer Boskovic Institute, Croatia, delivered a virtual session on Electrical Transport in Functional Materials with Disordered Structures: A Case Study of Phosphate-Based Glasses.

A research paper compilation was unveiled by Dr. T. Srinivas, Secretary of KBN College. The event was attended by Principal Dr. G. Krishnaveni, Administrative Officer Dr. V. Narayana Rao, Vice Principal P.L. Ramesh, Dr. M. Venkateswara Rao, Convener Dr. V. Ravi Kumar, and Organizing Secretary Dr. K. Kiran Kumar, among others.

నానో టెక్నాలజీలో ఉజ్వల భవిష్యత్తు



విజయవాడ పశ్చిమ, ఫిబ్రవరి 7, (ఆంధ్రపత్రిక): సమాజంలోని ప్రతి రంగాన్ని మరింత విస్తృతం చేసి, ప్రజా ప్రయోజనాలే లక్ష్యంగా నానో టెక్నాలజీ పనిచేస్తుందని, నానో టెక్నాలజీ రంగానికి మరింత ఉజ్వల భవిష్యత్తు ఉందని విభాగ శాస్త్రవేత్త, సెంటర్ ఫర్ నానో అండ్ సాఫ్ట్ మేటర్ సైన్సెస్, బెంగళూరు లైబ్రెర్ ప్రొఫెసర్ బి.ఎల్.వి. ప్రసాద్ అన్నారు. రాష్ట్ర ఉన్నత విద్యామండలి సహకారంతో కె.బి.ఎస్ కళాశాల ఎలక్ట్రానిక్, భౌతిక, రసాయన శాస్త్ర విభాగాలు సంయుక్తంగా 'ఫంక్షనల్ అండ్ స్మార్ట్ మెటీరియల్స్' అంశంపై ఏర్పాటు చేసిన రెండు రోజుల అంతర్జాతీయ సదస్సు శుక్రవారం ప్రారంభమైంది. ముఖ్య అతిథిగా పాల్గొన్న ప్రసాద్ మాట్లాడుతూ వ్యవసాయం, వైద్యం, వాతావరణ పరిశోధన, రక్షణ, సమాచార రంగాల్లో నానో టెక్నాలజీ కీలకపాత్ర పోషిస్తోందన్నారు. నానో వినియోగంలో భారతదేశంలో ప్రపంచంలో మూడోస్థానంలో ఉందన్నారు. నానో అవిష్కరణ కారణంగా భారత వ్యవసాయ రంగం విస్తృత పద్ధతులకు మారి, గణనీయమైన ప్రగతి సాధించిందన్నారు. నానో రంగంలో పరిశోధనలకు ప్రభుత్వ కేటాయింపులు ఇంకా పెరగాలన్నారు. నానో పదార్థాల తయారీ, అవశ్యకతలను ఉదాహరణ పూర్వకంగా వివరించారు. ఐఐఐఐఐ హైదరాబాద్ ప్రొఫెసర్ సి సుబ్రహ్మణ్యం 'మెటల్ ప్లాస్మోనిక్ నానో ప్రకృతి ఫర్ గ్రీన్ హైడ్రోజన్ ప్రొడక్షన్ బై ఫోటో ఎలక్ట్రో కెమికల్ సెల్స్' అంశంపై, హైదరాబాదుకు చెందిన మహాత్మా గాంధీ ఇన్స్టిట్యూట్ ఆఫ్ టెక్నాలజీ రీసెర్చ్ విభాగాధిపతి డాక్టర్ ఎన్. ఈశ్వర్ ప్రసాద్ రక్షణ రంగంలో ఫంక్షనల్, ఇంజనీరింగ్ మెటీరియల్స్ అంశంపై ప్రసంగించారు. డాక్టర్ లూకాపావిక్ (సీనియర్ రీసెర్చ్ అసోసియేట్, రాదార్ బిస్కావిక్ ఇన్స్టిట్యూట్, కోర్టియా) అంతర్జాలం ద్వారా 'ఎలక్ట్రోకల్ ట్రాన్స్ఫర్ ఇన్ ఫంక్షనల్ మెటీరియల్ విత్ డిజిటల్ ప్రకృతి. ఏ కే స్టడీ ఆఫ్ పాస్ పెట్ బేస్డ్ గ్లాస్' అనే అంశంపై చర్చించారు. ఈ సందర్భంగా ప్రచురించిన పరిశోధన పత్రాల సంకలనాన్ని కళాశాల సెక్రటరీ డాక్టర్ డి శ్రీనివాసు అవిష్కరించారు. కళాశాల ప్రిన్సిపల్ డాక్టర్ జి కృష్ణవేణి, అడ్మినిస్ట్రేటివ్ ఆఫీసర్ డాక్టర్ వి నారాయణ రావు, వైస్ ప్రిన్సిపాల్ పి ఎల్ రమేష్, డాక్టర్ ఎం వెంకటేశ్వరరావు, కన్వీనర్ డాక్టర్ వి. రవికుమార్, ఆర్గనైజింగ్ సెక్రటరీ డాక్టర్ కె. కిరణ్ కుమార్ పాల్గొన్నారు.

నానో టెక్నాలజీతో ఉజ్జ్వల భవిష్యత్తు

ప్రముఖ శాస్త్రవేత్త బి.ఎల్.వి. ప్రసాద్

ది అమరావతి వాయిస్, విజయవాడ:

సమాజంలోని ప్రతి రంగాన్ని మరింత విస్తృతం చేసే ప్రజా ప్రయోజనాలే లక్ష్యంగా నానో టెక్నాలజీ పనిచేస్తుందని, నానో టెక్నాలజీ రంగానికి మరింత ఉజ్జ్వల భవిష్యత్తు ఉందని ప్రముఖ శాస్త్రవేత్త, సెంటర్ ఫర్ నానో అండ్ స్పాస్ మేటర్ సైన్సెస్, బెంగళూరు డైరెక్టర్ ప్రొఫెసర్ బి.ఎల్.వి. ప్రసాద్ అన్నారు. రాష్ట్ర ఉన్నత విద్యామందిరి సహకారంతో కె.బి.ఎన్ కళాశాల ఎంబ్లెనిక్, ఛౌ



తిక, రసాయన శాస్త్ర విభాగాలు సంయుక్తంగా 'ఫంక్షనల్ అండ్ స్పాస్ మెటీరియల్స్' అంశంపై ఏర్పాటు చేసిన రెండు రోజుల అంతర్జాతీయ సదస్సు శుభవారం ప్రారంభమైంది. ముఖ్య అతిథిగా పాల్గొన్న ప్రసాద్ మాట్లాడుతూ... వ్యవసాయం, వైద్యం, వాతావరణ పరిశోధన, రక్షణ, సమాచార రంగాల్లో నానో టెక్నాలజీ కీలకపాత్ర పోషిస్తోందన్నారు. నానో వినియోగంలో భారతదేశంలో ప్రపంచంలో 3వ స్థానంలో ఉండవచ్చు. నానో అవిష్కరణ కారణంగా భారత వ్యవసాయ రంగం వినూత్న పద్ధతులతో గణనీయమైన ప్రగతి సాధించిందన్నారు. ముఖ్యంగా నానో రంగంలో పరిశోధనలకు ప్రభుత్వ కేటాయింపులు ఇంకా పెరగాల్సిన అవసరం ఉందన్నారు. నానో పదార్థాల తయారీ, ఉత్పత్తికక లను ఉ దాహారణ పూర్వకంగా వివరించారు. ఐఐఐఐ హైదరాబాద్ ప్రొఫెసర్ సి.సుబ్రహ్మణ్యం 'మెటర్ స్ట్రాస్ట్రోనిక్ నానో ట్రాన్సెక్టర్ ఫర్ గ్రీన్ హైడ్రోజన్

ప్రొడక్షన్ లై ఫోలో ఎలక్ట్రో కెమికల్ సెల్స్' అంశంపై, హైదరా బాద్ కు చెందిన మనోజ్ గాంధీ ఇన్స్టిట్యూట్ ఆఫ్ టెక్నాలజీ రీసెర్చ్ విభాగపతి డాక్టర్ ఎన్.ఈశ్వర్ ప్రసాద్ రక్షణ రంగంలో ఫంక్షనల్, ఇంటిగ్రేటింగ్ మెటీరియల్స్ అంశంపై ప్రసంగించారు. డాక్టర్ బాబాపాటిక్ (సీనియర్ రీసెర్చ్ అసోసియేట్, రాజారా ఇన్స్టిట్యూట్ ఆఫ్ టెక్నాలజీ, కోల్కతా) అంతర్జాలం ద్వారా 'ఎలక్ట్రో కెమికల్ ట్రాన్స్పోర్ట్ ఇన్ ఫంక్షనల్ మెటీరియల్ ఏక డిజిటల్ ట్రాన్సెక్టర్, ఏకే స్ట్రీ ఆఫ్ పాస్ పెల్ వేస్ట్ గ్లాస్ సెస్' అనే అంశంపై చర్చించారు. ఈ సందర్భంగా ప్రచురించిన పరిశోధన పత్రాల సంతకాన్ని కళాశాల సెక్రటరీ డాక్టర్ డి.కీనీవాసు అవిష్కరించారు. కళాశాల ప్రెసిడెంట్ డాక్టర్ జి.కృష్ణవేణి, అడ్మినిస్ట్రేటివ్ ఆఫీసర్ డాక్టర్ వి.నారాయణ రావు, వైస్ చైర్మన్ డి.ఎల్.రమేష్, డాక్టర్ ఎం.వెంకటేశ్వరరావు, కమీషనర్ డాక్టర్ వి.రవికుమార్, అధ్యక్షుల సెక్రటరీ డాక్టర్ కె.కిరణ్ కుమార్ పాల్గొన్నారు.

Vast Job Opportunities with IoT, says Professor Srinivasa Rao



DECCAN FREEDOM NEWS
Vijayawada West

In the rapidly evolving technological landscape, the study of the Internet of Things (IoT) offers vast career opportunities, said Professor Y. Srinivasa Rao, Director of Academic and Research Cell at Dr. Sardar Patel Institute of Technology, Mumbai. He participated as the chief guest in a workshop on "IoT Technology and Applications" organized by the Physics and Electronics Department of

KBN College on Monday at the college seminar hall. Addressing the students, Professor Srinivasa Rao emphasized the growing significance of IoT in various domains, from smart blackboards in classrooms to medical devices capable of detecting Parkinson's disease symptoms. He stated that by 2025, IoT usage in India is expected to grow by 22%, connecting nearly 27 billion devices. He provided insights into sensor integration, functionality of various sensors, and the use of

cloud platform software through a PowerPoint presentation. The session also included an interactive Q&A where students clarified their doubts. KBN College Principal Dr. G. Krishnaveni urged students to stay updated with global technological advancements. Hindu High Schools Committee Administrative Officer Dr. V. Narayana Rao, Electronics Department Head R. Uday Kumar, faculty member B. Shruti, and students participated in the workshop.