

# POORNAPRAJNA INSTITUTE OF SCIENTIFIC RESEARCH

PROMOTED AND MANAGED BY ADMAR MUTT EDUCATION TRUST

RECOGNIZED BY DSIR, GOVERNMENT OF INDIA AND MANIPAL ACADEMY OF HIGHER EDUCATION



**EVENTS - 2022** 

VISIT OF H H SRREE EESHAPRIYA TEERTHA SWAMIJI TO BIDALUR CAMPUS - 24.01.2022

The new chairman of PPISR H H Shree Eeshapriya Teertha Swamiji visited the Bidalur Campus on January 24, 2022. An event of welcome was organised for Poojya Swamiji to be received at the campus. An invocation was followed by the welcome address by Dr. Ramagopal, Dean. Prof. K Srihari made an initial remark on the institution, while the Director of the institute Dr. Anand B. Halgeri presented the overviews on the activities at the institute and research work carried out.

H H Shree Swamiji Released the Annual report of 2020 and the latest newsletter for the year 2021 and distributed the sports certificates alongwith other delegates. He also presented the Best Seminar Presentation Awards to the outstanding students. Then it was followed by benediction from Poojya Swamiji. Dr. Ganapati V. Shanbhag concluded the programme with vote of thanks.







Release of Annual report for the year 2021 by HH Shree Swamiji during his visit to the Campus



Release of Newsletter for the year 2021 by the Chairman HH Shree Eeshapriya Theertha Swamiji.



HH Shree Swamiji Glancing through the Doctoral Thesis displayed.



Awarding one of the students

On the same evening Mr. Rahul S, a student of Theoretical Sciences Division under the guidance of Dr. Sujit Sarkar, submitted his theses on the subject titled "Studies on Edged States on Hermitian and Non-Hermitian Topological Systems in the presence of the Director and his guide.



# CELEBRATION OF 73RD REPUBLICDAY AT BIDALUR CAMPUS - 26.01.2022

H H Shree Eeshapriya Theertha Swamiji was the guest of honour on the special event of celebration of 73<sup>rd</sup> Republic Day, 2022. H H Shree Swamiji hoisted the flag and addressed the gathering on the occasion. He expressed the views on Republican nation and its benefits to the nationals. An oath was taken in his presence addressing to reduce the usage of PLASTIC to the best of ability and to keep the campus eco-friendlier.





The chairman of the institution was also the part of the inauguration of the 4<sup>th</sup> edition of PPISR Activity Forum – January, 2022. A club formed to showcase the inner face of the members of PPISR on literature and extracurricular activities.



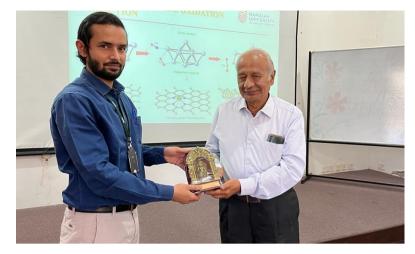
# FAREWELL TO SRI NAGARAJAN R. AND Dr. DHK MURTHY - 23.02.2022

A farewell programme was organised to Sri Nagarajan R, Accounts Officer following his retirement from services and Dr. DHK Murthy, Assistant Professor moving out of the institute for his better future. Sri Nagarajan has served this institute for more than 13 years and considering his personal values and commitments, opted to retire from services. During his tenure, he served the institute with utmost sincerity and looked after the financial management of projects, Purchases, imports and accounting systems.

Dr. Murthy, a young scientist reported from abroad and worked with dedication and commitment during his short tenure of two years.

An overall thoughts and views were expressed during the programme showering on them and the positive sides of their dedicated services during their tenure. Both were honoured by the Director and faculty members.



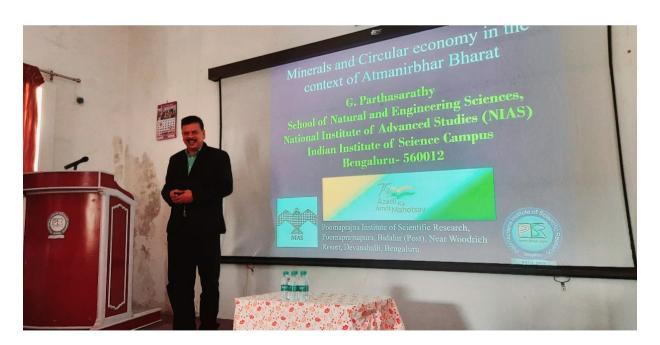


Prof. Deepak Kumar from Ramaiah University of Applied Sciences delivered an invited talk titled "DESIGN OF SUPPORTED CATALYSTS FOR NITROGEN REDUCTION REACTION: A CONTINUOUS CHALLENGE" on 24th February 2022 at 11.30 AM at the Bidalur Campus Auditorium.

# NATIONAL SCIENCE DAY - CELEBRATION AT BIDALUR CAMPUS - 03.03.2022(Thursday)

The National Science Day was celebrated with enthusiasm on March 3<sup>rd</sup>, 2022 at the Bidalur Campus. A programme was organised with an invited lecture by the chief guest Dr. G. Parthasarathy on the occasion. The programme began with an invocation followed by lighting of the lamp. The Director of the institute Dr. Anand B. Halgeri delivered the inaugural speech and welcomed the guest and the gatherings. The students of PPISR from all the three divisions gave talks on various subjects titled "Indian Metallurgy: From Ancient Indian Context to New Age Nano Systems", "Mysterious half-spin of the Electron", "Identity testing" and "G.N. Lewis and the Nobel Prize".

It was a wonderful experience to conclude the celebration of National Science Day at the Bidalur Campus.



One of the students of Biological Department Mr. KIRANA M.P. working under the guidance Dr. Ananda on Studies on Alpha-Glucosidase Inhibitors Isolated from Medical Plants and their Endophytic Fungi thesis to MAHE in the presence of his guide Dr. Ananda and the Director Dr. Anand B.

Halgeri.



# INVITED GUEST LECTURES BY PPISR FACULTIES OF MATERIALS SCIENCE & C D - ON 26<sup>th</sup> and 27<sup>th</sup> March, 2022



Dr. Ganapati V. Shanbhag, Associate Professor and HOD, Materials Science and Catalysis Division, PPISR has attended on invitation and delivered a lecture at the National Conference at KLS Gogte College of Technology, Belagavi held on 26<sup>th</sup> March, 2022.

Dr. Sanjeev P. Maradur, Associate Professor Materials Science and Catalysis Division, PPISR was invited for the National Symposium and Quiz Competition in Chemistry held at Sadguru Maharaj College, Karad (MH) from 19<sup>th</sup> to 20th March, 2022. He also delivered an Invited lecture on the occasion.



A Research Orientation Workshop in Chemistry (ROWIC) was organised at Bidalur Campus on April 04, 2022 for the students of St. Aloysius College of Mangalore for five days with accommodation at the campus. The workshop was inaugurated by lighting the lamp and was addressed by Dr. N. Ramesh, Registrar of REVA University, Bengaluru. The Director of the institute Dr. Anand B. Halgeri welcomed the dignitaries and an overview about the institution was presented by Dr. Ganapati V. Shanbhag, HOD and Associate Professor of Materials Science and Catalysis Division. Dr. Sanjeev P. Maradur, Associate Professor briefed about the workshop.

A series of lectures were delivered from PPISR Scholars and Faculties of Materials Science and Catalysis Division on topics such as Instrumental techniques of AAS, UV and FTIR, Principles and applications of GAS Chromatography, Instrumental techniques N2sorption, TPD and TGA analysis, Concept and importance of Heterogeneous Catalysis in modern day research, X-Ray crystallography and its applications in research, Nanomaterials and their applications, Metal Organic Frame work materials and their applications, Computational Chemistry, TBD, Importance of Catalysis in Biomass processing, Laboratory Safety Practices (LSP) etc., Alongwith the above lectures, hands on experience sessions on practical utilisation of instruments were also conducted.







### SIGNING OF M O U BETWEEN PPISR AND REWA UNIVERSITY - 04.04.2022

During his visit to the campus for the inauguration of the Research Orientation Workshop, Dr. N Ramesh, the Registrar of REVA university also signed a Memorandum of Understanding (MOU)with PPISR in the presence of the Director and other members of both the institutions.









# **RESEARCH ORIENTATION WORKSHOP VALEDICTORY FUNCTION ON 08.04.2022**

After the successful completion of programme schedule of the Research Orientation Workshop of five days, the valedictory function was organised on the last day of the workshop. Prof. V. Jayathirtha Rao, Emeritus Scientist – CSIR-IICT, Hyderabad and Hon. Professor at AcSIR was the chief guest. After welcoming the guest by Anand B. Halgeri, Director, PPISR, the proceedings of the workshop were delivered by the convenor of the workshop Dr. Ganapati V. Shanbhag. Some of the participants expressed their thoughts and views about the workshop, its benefits and the reasons to attend such workshops in future also. The guest and other dignitaries on the Dias distributed the participation and appreciation certificates to participant students of St. Aloysius College and Scholars of PPISR. Prof. Jayathirtha Rao addressed the gathering and delivered a lecture on "Luminescence and Relative













Participation of Students in the Research Orientation Workshop held at PPISR campus

# H H SHREE EESHAPRIYA THEERTHA SWAMIJI'S VISIT TO JNCASR - 26.05.2022

H H Shree Eeshapriya Teertha Swamiji visited Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR) on May 26, 2022 to have a glimpse of the centre and eventually to meet Prof. CNR Rao, renowned emeritus scientist and Bharat Ratna awardee and the former president of JNCASR during his visit. He met Prof. CNR Rao and Mrs. Rao and honoured them during the process. He also went around the laboratories and interacted with the scholars and scientists. HH Sri Swamiji also visited the Gallery of Prof. C.N. R Rao and was very much impressed with awards and recitation display at the gallery.

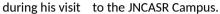


H.H. Shree Swamiji visiting the Labs in JNCASR



H H Shree Swamiji honouring Prof. CNR Rao and Mrs. Rao







Prof. C N R Rao in the JNCASR Campus

Later in the evening, H H Shree Eeshapriya Teertha Swamiji attended the invited talk by Prof. V. Jayathirtha Rao on the interesting subject of "PANCHAGAVYA" at the Bidalur Campus auditorium. At the end of the lecture, H H Shree Swamiji spoke about the importance of Panchagavya and its usages. He also stressed on doing research on the Panchagavya and on the importance cattle by having a "goshala" in the premises.



# SUBMISSION OF THESIS BY Ms. MARILYN ESCLANCE DMELLO ON 29.08.2022

MISS MARYLYN D'MELLO submitted her Doctoral Thesis titled "Design and Development of Metal Organic Framework based Materials for Gas Sensing Applications" under the guidance of Dr. Ganapati V. Shanbhag. The Director of the institute was also present during the submission.



The celebration of Founder's Day at Bidalur campus was subdued due to pandemic circumstances and was celebrated on a moderate way for the past two years (2020 and 2021). But, considering the low of pandemic effects, the Founder's Day for the year 2022 is celebrated with great enthusiasm. The past glory has been brought back and in this regard, guests were invited for the inauguration and valedictory days of Founder's Day Celebration.

Prof. Padmanabhan Balaram was invited as chief guest for the inauguration of the Founder's Day on 7<sup>th</sup> July, 2022. He inaugurated the morning session with a keynote lecture and it was followed by Overview of PPISR and Biological sessions. The first session had two talks from invited speakers namely Prof. Deepak Nair on "Nanoscale regulation of Ca2+ dependent phase transitions and real-time dynamics of SAP97/hDLG", followed by Prof. Dinesh A. Nagegowda on the topic "Demystifying the biosynthesis and regulation of specialized metabolites in certain medicinal and aromatic plants".

The afternoon sessions were for theoretical sciences with overview on PPISR and Theoretical sciences research by Associate Professor Srikanth of PPISR. The first lecture was delivered by Prof. Sisir Roy on "Noise, coherence and meditation: challenges to modern sciences" followed by lecture from Prof. Sateesh R. S. on "Symmetries in the standard Model".

The second day (08.07.2022 began with the overview of PPISR and Materials Science Research by Associate Professor and HOD Dr. Ganapati V. Shanbhag of PPISR followed by two lectures on "Magneto electric Multiferroics" by Prof. A. Sundaram and "Soft-Nano Composites: Functional materials aiding dreamy invisibility technology" by Dr C. V. Yelamaggad.







# **VALEDICTORY - JULY 08, 2022**

The afternoon session was the valedictory function for which Prof. S. Ayyappan, Chancellor, Central agricultural University, Imphal and Chairman, Karnataka Science and Technology Academy, Bengaluru was the chief guest and Dr. Rajeshwar Dongara, Director, SABIC Research and Technology Centre, Bengaluru was the Guest of Honour. The Director welcomed the guest, while the Hon. Secretary of PPISR/AMEF made the opening remarks about PPISR followed by addressing of the guests. An MOU between KSTA and PPISR was also signed on the same day.





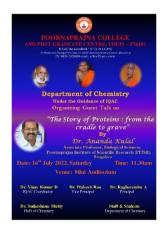












Dr. Ananda, Associate Professor, Biological Sciences Division, PPISR was invited by the Department of Chemistry, Poornaprajna College, Udupi and delivered a Guest Talk on "The Story of proteins – From the Cradle to Grave" at the mini auditorium.



Happy to inform that **Ms. Chaitra Mallannavar** won **BEST POSTER** Presentation award in a one-day National Conference on "Recent Advances in Chemical Sciences "at **J.S.S Arts, Science and Commerce College, Gokak** sponsored by **Karnataka Science and Technology Academy** (KSTA), Government of Karnataka, on 23rd July 2022. She presented her work on ""Chemical fixation of CO2 by converting into cyclic carbonate via cycloaddition reaction with styrene oxide using mixed metal oxide dispersed sialon rich mesoporous SBA-15 catalyst". Heartiest congratulations to her!

# PPEC OUTREACH ORIENTATION PROGRAMME - 25<sup>TH</sup> JULY TO 30<sup>TH</sup> JULY, 2022



PPISR has been conducting Outreach Research Orientation Programme for students of Poornaprajna Education Centres of Bengaluru jurisdiction annually for the young minds to inculcate awareness of modern science. This outreach programme was not conducted for the past two years due the pandemic effect. This outreach orientation programme is one of the major events of PPISR and are willing to share the available research facilities and expertise with the PPEC school students. To materialize this concept, a week long (From July 25 to July30, 2022) science programme has been arranged at Bidalur Campus for Class "X" (Ten) students and science teachers. The students of all the schools participated with enthusiasm and shown interest for science.

# Visit of Team from S I T, Tumakuru for discussions 25.07.2022

Dr. S. Murthy Shekhar Professor and Head, Chemical Engineering, Siddaganga Institute of Technologies (S I T), Dr Anil Rao and Dr Poornima Hiremath visited PPISR on Wednesday 27th July, 2022 to discuss and get all the information on DFT and to see the facilities at PPISR. They were impressed amazingly on the facilities and the kind of work carried out at PPISR.



# CELEBRATION OF 75<sup>TH</sup> YEAR OF INDEPENDECE DAY - 15.08.2022





The 75<sup>th</sup> Independence Day of AAZHADI KI AMRUT MAHOTSAV was celebrated with enthusiasm on the 15<sup>th</sup> of August, 2022 at the Bidalur Campus. The Director after unfurling the national flag, addressed the gathering on the importance of freedom to the nation and the progress of the institute. Later, the PPISR Activity Forum had organised the literature fest by the members of PPISR, where in articles, drawings and poems were displayed and briefly introduced by the organisers. Overall, the day was celebrated with full enthusiasm and 75 saplings were planted by all members of PPISR to mark the 75<sup>th</sup> years of freedom celebration.

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# VISIT OF Dr. RAMACHANDRA SRINIVAS AND Dr. NAGENDRA TO BIDALUR CAMPUS ON 08.09.2022



The Director welcomed the guests sent by H H Shree Swamiji. An overivew of the activities at the PPISR was presented to them by all the three divisions represented by the Dean, HOD and Faculties The team of visitors were impressed with the nature of work carried out at PPISR and during the discussions intended for more pattents.

# **Visit of Delegates from GITAM UNIVERSITY**



The pro Vice-Chancellor Prof. M. S. Mohan Kumar along with the Principal, Assistant Principal, HOD of Chemistry Department and two other faculties of Gitam University visited the institute on September 27, 2022 for the collaborative discussions and also to have a MOU with PPISR.

# SUBMISSION OF THESIS BY Ms. CHETANA ARATANDY ON SEPTEMBER 30, 2022

Miss. Chetana Aratandy, a student of Dr. Nalini G. Sundaram submitted her thesis titled "**Design of Semiconductor Oxide Nanomaterials for Efficient Gas Sensors**" on the 30<sup>th</sup> of September, 2022 in the presence of the Director, her guide Dr. Nalini G. Sundaram and her co-guide Dr. Ganapati V. Shanbhag.



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# AAYUDHA POOJA AND SARASWATI POOJA AT BIDALUR CAMPUS - OCTOBER 03, 2022





The annually celebrated festival of Aayudha Pooja and Saraswati Pooja were organised at Bidalur Campus on the 3<sup>rd</sup> of October, 2022. As usual all the members of PPISR and their families participated in the Pooja and were graced by the blessings of God Saraswati. All the laboratories, instruments, vehicles etc., were performed on the occasion of Aayudha Pooja for the safe utilization of instruments, vehicles etc.,

# H H SRI VIBUDHESHA TEERTHA SWAMIJI 3<sup>RD</sup> MEMORIAL ENDOWMENT LECTURE - 13.10.2022

In memory of His Holiness Sri Vibudhesha Teertha Swamiji, the 3<sup>rd</sup> memorial endowment lecture in the series was organised at Bidalur Campus on the 13<sup>th</sup> of October, 2022. On this occasion, a renowned scientist and the Director of Centre for Nano Soft Matter Sciences (CeNS), Bengaluru was the chief guest and an endowment lecture was delivered by him on "A Chemist's perspective on Nanomaterial Synthesis: How to bridge the gap between Laboratory and the Market?"

After the welcome address by the Director of the institute Dr. Anand B. Halgeri, a tribute to the great soul HH Sri Vibudhesha Theertha Swamiji and on his Vision and Mission for Science and scientific activities was address by Dr. K. Srihari, Hon. Secretary of AMEF/PPISR. During the benediction from the present chairman HH Shree Eeshapriya Theertha Swamiji, addressed the gathering on the efforts of the founder chairman in setting up this scientific institute and his visions for science. He also insisted the gathering on becoming intellectually and financially empowered and though lived in any other nation, need to preserve our culture, tradition and patriotism forever. HH Shree Swamiji insisted that, In the next 30 years India will have the power to rule the

world, as we all are competent in spirituality, religion and science and advised to think about the progress of the country.

Overall, it was an excellent evening event on the memorial endowment lecture organised at the Bidalur Campus. The programme was totally covered by the press media and published in the kannada dailies.





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# ವಿಶೇಷ ದತ್ತಿ ವಿಜ್ಞಾನ ಉಪನ್ಯಾಸ ಕಾರ್ಯಕ್ರಮ ಉಧ್ಘಾಟಕ

ದೇವನಹಳ್ಳಿ : ಭಗವಂತನ ಸಾನಿಧ್ಯದ ವರ್ಷಗಳಲ್ಲಿ ಭಾರತಕ್ಕೆ ವಿಶ್ವವನ್ನು ಆಳುವ ಪ್ರದಾನಿ ವಾಜಪೇಯಿಯವರು ಅಡಿಗಲ್ಲು ನಾವು ಬೌಧ್ವಿಕವಾಗಿ ಆರ್ಥಿಕವಾಗಿ ವಿಜ್ಞಾನ ಎಲ್ಲದರಲ್ಲಿ ಸಮರ್ಥರಿದ್ದವೆ ಬೆಳೆದಿದೆ ಈ ಸಂಸ್ಥೆಯಲ್ಲಿ ಈವರೆವಿಗೂ ಜ್ಜಾನವಂತರಾಗಿ ವಿಜ್ಞಾನವಂತರಾಗಿ ವಿಶ್ವದ ಯಾವುದೇ ದೇಶಕ್ಕೆ ಹೋಗಿ ಬದುಕ ಕಟ್ಟಿಕೊಂಡರೂ ಸಂಸ್ಕೃತಿ ಸಂಸ್ಕಾರ ದೇಶಪೃಏಮವನ್ನು ಎಂದಿಗೂ ಬಿಡಬಾರದು ಎಂದು ಉಡುಪಿಯ ಅದಮಾರು ಮಠದ ಶೀ ಈಶಪ್ರಿಯಸ್ವಾಮೀಜಿಗಳು ಹೇಳಿದರು.

ಅವರು ದೇವನಹಳ್ಳಿ ತಾಲೂಕಿನ ಬಿದಲೂರು ಗ್ರಾಮದ ಬಳಿಯ ಪೂರ್ಣಪ್ರಜ್ಞ ವೈಜ್ಞಾನಿಕ ಸಂಶೋಧನಾ ಕೇಂದ್ರದ ಸಭಾಂಗಣದಲ್ಲಿ ಪಿಪಿಐಎಸ್ ಆರ್ ಸಂಸ್ಥಾಪಕರಾದ ವಿಭುದೀಶ ತೀರ್ಥ ಸ್ವಾಮೀಜಿಗಳ ಸ್ವರಣಾರ್ಥ ಖ್ಯಾತ ವಿಜ್ಞಾನ ಸಂಶೋಧಕರಾದ ಬಿಎಲ್.ವಿ ಪಸಧ್ ರವರ ವಿಶೇಷ ವಿಜ್ಞಾನ ಉಪನ್ಯಾಸ ಕಾರ್ಯಕ್ರಮವನ್ನು ಉಧ್ಘಾಟಿಸಿ ವಹಿಸಿ ಮಾತನಾಡಿದರು. ಸಾನಿಧ್ಯ ದೇಶಗಲಾಗಿ ಮುಂದುವರಿದಿವೆ ಇನ್ನು ಕೈಜೋಡಿಸೋಣ ಎಂದರು. ಮುಂದೆ ಹಾಗಾಗುವುದು ಬೆಡ ನಮ್ಮ ಭಾರತ ಬದಲಾವಣೆಯತ್ತ ಬಲಿಷ್ಟ ನಾಯಕತ್ರದೊಂದಿಗೆ ಸಾಗುತ್ತಿದೆ ಇಧೇ

ಕಡೆ ಗಮನ ಹರಿಸುವ ಮೊದಲು ಶಕ್ತಿ ಬರಲಿದೆ ನಾವು ಆದ್ಯಾತ್ತ್ಲ ಧರ್ಮ ಹಾಕಿದ್ದರು ಈಗ ಇದೇಸಂಸ್ಥೆ ಹೆಮ್ಮರವಾಗಿ ಸಬಲರಾಗಬೇಕು ನಮ್ಮ ದೇಶದ ಜನ ನಾವೆಲ್ಲ ಒಂದಾಗಿ ದೇಶದ ಪ್ರಗತಿಯ 25 ಜನ ಪಿಎಚ್.ಡಿ ಮಾಡಿದ್ದಾರೆ ಒಬ್ಬ ಕಡೆ ಚಿಂತನೆ ಮಾಡೋಣ ನಾವು

ಆದ್ಯಾತ್ತದ ಸ್ವಾಮೀಜಿ ಸ್ಥಾಪಿಸಿದ ವಿಜ್ಞಾನ



ವೈಜ್ಞಾನಿಕ ಪ್ರತಿಭೆಗಳನ್ನು ಬಳಸಿಕೊಂಡು ಪಡೆಯುವುದರ ಮೂಲಕ ನಾವೂ ಅವಿಷ್ಕಾರ ಮಾಡುವ ವಿಜ್ಞಾನಿಗಳನ್ನು ಬಹುಪಯೋಗವಾಗಲಿದೆ ವಿಶ್ವದ ಹಲವು ದೇಶಗಳು ಅಗ್ರಮಾನ್ಯ ಬೆಳೆಯುತ್ತಾ ದೇಶದ ಬಲಿಷೃತೆಗೆ ಸೃರ್ಷ್ಕಟಿಸುವ ಕೇಂದ್ರವಾಗಿದ್ದು ಇದರ ನಮ್ಮ ಸ್ವಾಮೀಜಿಗಳು ದೇಶಗಲಾಗಿ ಮುಂದುವರಿದಿವೆ ಇನ್ನು ಕ್ರೆಜೋಡಿಸೋಣ ಎಂದರು. ಸಾರಥ್ಯ ವಹಿಸಿ ಈಗ ಈಶಪ್ರಿಯ ಕಾರ್ಯಕ್ರಮಗಳಿಗೆ ಹೆಚ

ಎಎ೦ಇಎಫ್ ದೇಶಧ ಆದ್ಯಾತ್ಮದ ಜೊತೆಗೆ ವೈಜ್ಞಾನಿಕ ಪಿಪಿಐಎಸ್ಆರ್ ಕಾರ್ಯದರ್ಶಿ ಡಾ. ನಮಗೆ ಹೆಮ್ಮೆಯ ಸಂಗತಿ ಎಂದರು. ಅವಿಷ್ಕಾರಗಖು ಇಲ್ಲಿಯೇ ಆಗಿ ಭಾರತ ಕೆ.ಶ್ರೀಹರಿ ಮಾತನಾಡಿ, ವಿಭುದೀಶ ಸಂಶೋಧನಾ ಸಂಸ್ಥೆ ಸ್ಥಾಪಿಸಿದರು ಅವರುನ್ನು ವೈಜ್ಞಾನಿಕ ಸ್ವಾಮೀಜಿಗಳೆಂದೇ ರೀತಿ ಮುಂದುವರಿದರೆ ಇನ್ನೂ 30 ಕರೆಯಲಾಗುತ್ತಿತ್ತು ಇದಕ್ಕೆ ಅಂದಿನ

ಹಾಗು ಸ್ರಾಮಿಜೀಗಳು ಇದನ್ನು ಬೆಳೆಸುತ್ತಿರುವುದು

ಬೆ<ಗಳೂರಿನ ನ್ಯಾನೋ ಸಾಫ್ಟ್ ಲ್ಯಾಬೋರೇಟರಿ ಮತ್ತು ಮೆಟಿರಿಯಲ್ ಮಾರುಕಟ್ಟೆ ಮಧ್ಯ ಬ್ರಿಡ್ಜ್ ನಂತೆ ಕೆಲಸ ಮುಂತಾದವರಿದ್ದರು.

ಮಾಡಲಿದೆ ಎಂಬುದರ ಬಗ್ಗೆ ಮಾತನಾಡಿ ನ್ಯಾನೋ ಪದಾರ್ಥ ಏನು ಅದು ಸಣ್ಣ ವಸ್ತುಗಳಿಂದ ದೊಡ್ಡ ವ್ಯವಸ್ಥೆಗಳವರೆಗೂ ಯಾವ ರೀತಿ ಬಳಸಿಕೊಳ್ಳಬಹುದು ಇದರ ಮಹತ್ವ ಮುಂದೆ ಎಷ್ಟು ಅವಶ್ಯಕ ಇದರ ಅಪ್ಲಿಕೇಷನ್ ಗಳನ್ನು ಸಣ್ಣ ಪ್ರಮಾಣದಿಂದ ದೊಡ್ಡ ಪ್ರಮಾಣದಲ್ಲಿ ಮಾರ್ಕೆಟಿಂಗ್ ಯಾವ ರೀತಿ ಮಾಡಬದು ಎಂಬುದರ ಬಗ್ಗೆ ವಿಶೇಷ ಉಪನ್ಯಾಸ ನೀಡಿದರು.

ಪಿಪಿಐಎಸ್ ಆರ್ ನಿರ್ದೇಶಕ ಡಾ. ಆನಂದ ಬಿ ಹಲಗೇರಿ ಮಾತನಾಡಿ, ಇಂದು ನಡೆದ ಎಂಡೋಮೆಂಟ್ ಉಪನ್ಮಾಸ ನ್ಯಾನೋ ಮೆಟಿರಿಯಲ್ ವಿಜಾನ ಬಗ್ಗೆ ಸಂಶೋಧಕರು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಬಹಳ ಉಪಯುಕವಾಗಿತು ಇದರ ಭಾರತದ ವಿಜ್ಞಾನಿಗಳಿಗೆ ಉಪಯೋಗವಾಗಲಿದೆ ನಮ್ಮ ಸಂಸ್ಥೆ ಹೊಸ ಹೊಸ ಸಂಶೋಧನೆಗಳು ಮಾಡುತ್ತಿರುವುದು ಇಂದು ನ್ಯಾನೋ ಸೈನ್ಸ್ ನ್ಯಾನೋ ಕಾರ್ ನ್ಯಾನೋ ಗೊಬ್ಬರ ಮುಂತಾದವು ಬರುತ್ತಿದೆ ಇದು ಇದುವರೆವಿಗೂ ನಮ್ಮ ದೇಶದ ಇಂತಹ ಕಾರ್ಯಕ್ರಮಗಳಲ್ಲಿ ಜ್ಞಾನ ಸಂಸ್ಥೆ ಹೆಮ್ಮರವಾಗಿ ಬೆಳೆದು ಹಲವು ಕೆಮಿಸ್ಟೀ ಮತ್ತು ಫಿಜಿಕ್ಸ್ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಇಂತಹ ಸಾರಥ್ಯ ವಹಿಸಿ ಈಗ ಈಶಪ್ರಿಯ ಕಾರ್ಯಕ್ರಮಗಳಿಗೆ ಹೆಚ್ಚು ಒತ್ತು ನೀಡುತ್ತಿದ್ದಾರೆ ಎಂದರು.

ವಿಶೇಷ ಕಾರ್ಯಕ್ರಮದಲ್ಲಿ ಪಿಪಿಐಎಸ್ಆರ್ ನ ಎಚ್.ಓಡಿ ಡಾ. ವಿಶ್ವಗುರುವಾಗಬೇಕು ಎಂದರು. 30– ಸ್ವಾಮೀಜಿಗಳು ಒಂದು ದೃಡ ಸಂಕಲ್ಪ ಮ್ಯಾಟರ್ ವಿಜ್ಞಾನ ಸಂಸ್ಥೆಯ ನಿದೇರ್ಶಕ ಗಣಪತಿ ವಿ ಶಾನಭಾಗ್, ಸಂಶೋಧಕ 40 ವರ್ಷಗಳ ಹಿಂದಿನ ಸಂಕಲ್ಪ ನಿರ್ದಷ್ಟ ಗುರಿಯೊಂದಿಗೆ ಈ ವಿಜ್ಞಾನ ಡಾ. ಭಗವತುಲು ಪ್ರಸಾದ್ ನ್ಯಾನೋ ಉಪನ್ಯಾಸಕಿ ಮೇಘನ ಹುಬ್ಬಳಿ, ಉತ್ಪನ್ನ ವಸ್ತುಗಳು ಯಾವ ರೀತಿ ಕೋಆರ್ಡಿನೇಟರ್ ಡಾ. ಆನಂದ್ ಕೆ, ಪ್ರವೀಣ್ ಕುಮಾರ್ , ಕಿಶೋರಗಾಯಕ್ರಾಡ್

limpses of the program lished in the kannada dailies The Vaani.

**CELEBRATION OF KARNATAKA FORMATION DAY AT BIDALUR CAMPUS - 01.11.2022** 

**"Karnataka Formation Day"** was celebrated at Bidalur Campus on November 01, 2022 by students and faculties. In connection with this programme, Kannada quizzes, paying kannada songs and anthem were arranged. Everyone participated with enthusiasm.

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# INVITED TALK BY Dr. VIJAYALAKSHIM PURANIK, Sr. General Manager, Reliance Industries - 03.11.2022.



**Dr. Vijayalakshmi Purnanik**, Senior General Manager at Reliance Industries is visited our institute on 3rd November 2022. A talk on "Fundamentals of Adsorption and Processes" was delivered by her. The talk was on *the* basics of adsorption, physisorption/chemisorption and type of adsorbents, Mechanism involved in adsorption based separation processes, Formation of monolayer/multilayer and types of adsorption isotherms based on BET method. It also specified on Classification of adsorption processes based on adsorbate concentration, Regeneration of adsorbents by different processes like TSA (Temperature Swing Adsorption) and PSA (Pressure Swing Adsorption) etc.,

# AMEF BOARD OF TRUSTEES QUARTERLY MEETING HELD AT SADASHIVNAGAR OFFICE - 12.11.2022.

The quarterly Meeting of the Board of trustees of AMEF was held on November 12, 2022 at the Sadashivanagar office premises in the presence of the Chairman, trustee members and invitees. The agenda included the adoption of minutes of the previous meeting held on 17.03.22, Ratification of resolutions, Presentation of Annual Report for the year 2021-22, to consider and adopt the Audited financial statements of 2021-22 and proposal from AMEC. Also the Annual Report for the year 2021-22 was released by the Chairman- AMEF during the meeting. The present auditor was re-elected to continue to audit the financial statements of AMEF/PPISR for the current financial year 2022-23.

The Director of the institute presented the progress report of the institution with visual slides making it clear to the trustee members and the chairman about the constant progress of the institute through sponsored projects of Government and private organisations, number of publications by the faculties and students, the index status of the institute standing at 59 out of 60 reputed institutes of the nation, the doctoral degrees obtained by students in various subjects till now, the M O U's with various universities (Deemed to be), the Out Reach Programmes for students of PPEC schools, the Research Orientation Programmes for the various colleges of Karnataka etc.,

The progress of the institute was well appreciated by the present trustee members and the Chairman. The members were happy with the overall progress shown by the institute under the stewardship of Dr. Ahand B. Halgeri, Director, PPISR.

Release of Annual Report for the year 2021-22 by the Chairman during the Quarterly Meeting of Board of Trustees

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# Honouring of PhD students by H H Shree Eeshapriya Theertha Swamiji in the AGM of AMEC- 13.11.2022.



The Doctoral Students of PPISR from the three divisions (Biological, Materials and Theoretical sciences divisions) who obtained PhD from MAHE in various disciplines were felicitated by His Holiness Shree Eeshapriya Theertha Swamiji, the present chairman of AMEF/PPISR during the Annual General Body Meeting of Poornaprajna Education Centres held at Sadashivanagar premises on November 11, 2022.

The following are the details of the students and their PhD titles with their guides names.

## 1. Dr. Kempanna S. Kanakikodi.

**Title:** Designing Functionalzed Mesoporous Materials for Catalytic Conversion of Biomass Platform Chemicals to Value Added Products.

Guide: Dr. Sanjeev P. Maradur.

### 2. Dr. Nagendra Kulal.

**Title:** Metal Oxide-based Acid-base Bifunctional Catalysts for Chemical Fixation of CO<sub>2</sub> via Carbonylation reactions.

Guide: Dr. Ganapati V. Shanbhag.





# 3. Dr. Swetha Lankipalli.

Title: Structure-guided Modification of B7-1 and B7-2 for Potential use in

Immunotherapy and Novel Insights on B7-2 oligomerization.

Guide: Dr. Udupi A. Ramagopal.

### 4. Dr. Kirana M.P.

Title: Studies on Alpha-Glucosidase Inhibitors isolated from Medicinal Plants

and their Endophytic Fungi.

Guide: Dr. Ananda K.

# 5. Dr. Rahul S.

Title: Studies on Edge States for Hermitian and Non-Hermitian Topological systems

Guide: Dr. Sujit Sarkar.

# 6. Dr. Marilyn Esclance Dmello.

Title: Design and Development of Metal-Organic Framework based Materials for

Gas Sensing Applications.

Guide: Dr. Ganapati V. Shanbhag.









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# VISIT OF COL. RAJARAM AND SHRI GURURAJ SHREEDHAR, Principal WPPC, Bengaluru -18.11.2022



Con. Rajaram, Secretary and Shri Gururaj Shreedhar, Principal, Widia Poornaprajna College visited our Bidalur Campus on November 18, 2022. The reason of visit is to know more about the institution and to write an article about the institution in the print media. An interaction session with the faculties and the director was followed with visits to the laboratories to get the glimpses of the research work carried out there.

# MOUBETWEEN PPISR AND GITAM UNIVERSITY -25.11.2022



ಸಮಂಜದ ಕಷ್ಟಕರ ಸಮಸ್ಯೆಗಳನೆನು ವೆಂಜೆಞಾನಿಕ ಸಮುದಂಯದ ಮುಕ್ತ ಸಹಯೋಗದ ಮೂಲಕ ಮಂತೆರ ಪರಿಹರಿಸಬಹುದು.ಈ ನಿಟ್ಟಿನಲ್ಲಿಗೀತಮೆ ವಿಶ್ವವಿದ್ಯಾಲಯ (ಬೆಂಗಳೂರು ಕೆಯಾಪಸೆ) ಪೂರ್ಣಪ್ರಜೆಞಾ ಇನೆಸೆಟಿಟೆಯೂಟ್ ಆಫೆ ಸೊಂಟಿಫಿಕ್ ರಿಸರ್ಚ್ (PPISR) ನಡುವೆ ನವೆಂಬರ್ 25, 2022 ರಂದು ಗೀತಮೆ ವಿಶ್ವವಿದ್ಯಂಲಯದಲ್ಲಿ ನಡೆದ ಕಂರೆಯಕ್ರಮದಲ್ಲಿ ಒಡಂಬಡಿಕೆಗೆ (M O U)ಸಹಿ ಹಂಕಲಾಯಿತು.ಗೀತಮೆ ವಿಶ್ವವಿದೆಯಂಲಯದ ಕುಲಸಚಿವರಂದ ಡಾ॥ ಡಿ. ಗುಣಶೇಖರನೆ ಮತಿತು ಪೂರೆಣಪೆರಜೆಞ ಸಂಸಿಥೆಯ ನಿರ್ದೇಶಕ ಡಾ॥ಆನಂದ ಬಿ. ಹಲಗೇರಿ ಅವರು ಒಡಂಬಡಿಕೆಗೆ ಸಹಿ ಹಾಕಿದರು. ಗೀತಮೆ ವಿಶ್ವವಿದ್ಯಾಲಯ ಬೆಂಗಳೂರು ಕೆಯುಂಪಸೆನ ಪೆರೊ-ವೌಸೆ ಚಂನೆಸೆಲರ್, ಪೆರೊ. ಮೋಹನೆ ಕುಮಂರ್, ಪೆರೊ. ವೌಸೆ ಚಂನೆಸೆಲರ್ ಅಕೆಯಂಡೆಮಿಕೆಸೆ, ದಾ∥.ಜಯಶಂಕರೆ ವಾರಿಯರೆ, ವಸತಿ ನಿರೆದೇಶಕ ಶೆರೀ ವಿಜಯೆ ಗೆಜೆಜಿ, ಮುಖೆಯಸೆಥ ಎಚೆ. ಆರೆ. ಶೆರೀ ಶಿವಕುಮಾರಿ ರಾಘವನೆ. ಗೀತಮೆ ಸೆಕೂಲೆ ಆಫೆ ಸೌನಿಸಿ ಪೆರಾಂಶುಪಾಲರಾದ ದಾ∥ ಅತುಲೆ ಕುಮಾರಿ. ರಸಾಯನಶಾಸ್ತ್ರ ವಿಭಾಗದ ಎಚ್ ಒ ಡಿ ಡಾ॥ ಚಿಲುಕೋಟಿ ಶ್ರೀಲಕ್ಷೆಮಿ. ಪಿಪಿಐಎಸ್ಆರ್ ಡೀನೆ -ಅಕಂಡೆಮಿಕೆಸೆ ಡಾ∥.ಉಡುಪಿ ರಾಮಗೋಪಾಲ್.ಎಚೆ ಒಡಿ ಡಾ∥ಗಣಪತಿ ಶಾನಭಾಗೆ.ಡಾ∥ಆರೆ ಶೆರೀಕಾಂತೆ.ಡಾ∥ಸಂಜೀವೆ ಮರಡೂರೆ. ಡಾ॥ನರೇಶೆ ನಲಜಾಲ. ಹಾಗೂ ಡಾ॥ರಂಜೀಬೆ ಕುಮಾರೆ ಸಿಂಘು ಮುಂತಂದವರು ಉಪಸೆಥಿತರಿದೆದರು. ಪೆರೊ. ಮೋಹನೆ ಕುಮಾರವರು ಮಾತನಾಡಿ ಎರಡು ಸಂಸೆಥೆಗಳ ನಡುವಿನ ಒಪೆಪಂದದಿಂದ ಉತೆತಮ ಜಂಟಿ ಸಂಶೋಧನಾ ಪ್ರಬಂಧಗಳನೆನು ಹೊರತರಬಹುದು ಮತೆತು ಪೂರ್ಣಪ್ರಜೆಞಂ ಸಂಸ್ಥೆಯ ಮುಂದಿನ ವಿದ್ಯಂರ್ಥಿಗಳು ಗೀತಮೆ ವಿಶ್ವವಿದ್ಯಾಲಯದಿಂದ ಪಿಎಚೆಡಿ (PhD) ಪಡೆಯಬಹುದು ಎಂದು ಹೇಳಿದರು. ಡಾ॥ ಹಲಗೇರಿಯವರು ಪೂರೆಣಪ್ರಜೆಞಾ ಸಂಸ್ಥೆಯ ವೊಜೆಞಾನಿಕ ಸಂಧನೆಗಳು ಮತೆತು ಉದ್ಯಮಗಳ ಪ್ರಾಯೋಜಕತೆವದ ಸಂಶೋಧನಂ ಯೋಜನೆಗಳ ಕುರಿತು ಮಂತನಂಡಿದರು. ಭಾರತದ ಉನೆನತ ಶ್ರೇಣಿಯ ವಿಶ್ವವಿದೆಯಂನಿಲಯಗಳಲ್ಲಿ ಒಂದಂದ ಗೀತಮೆ ವಿಶ್ವವಿದೆಯಂನಿಲಯದ ಸಹಯೋಗವು ಅತೆಯುತೆತಮ ಸಂಶೋಧನೆ ಮಂಡಲು ಅನುಕೂಲವಂಗುತೆತದೆ ಎಂದು ಅವರು ಹೇಳಿದರು. ಈ ಒಪೆಪಂದವು ಎರಡೂ ಸಂಸೆಥೆಗಳ ನಡುವೆ ವೊಜೆಞಾನಿಕ ಸಹಯೋಗ ಮತೆತು ಜಂಟಿ ಸಂಶೋಧನಂ ಯೋಜನೆಗಳನೆನು ಕಾಂಗೊಳೆಳಲು ಸಹಂಯ ಮಂಡುತೆತದೆ.





GITAM Deemed to be University Registrar D Gunasekaran and PPISR Director Ananda B Halageri sign a Memorandum of Understanding in Doddaballapur. GITAM Pro Vice-Chancellor M S Mohan Kumar, Pro Vice-Chancellor (Academics) Jayasankar Variyar, and others are seen. DH PHOTO

# GITAM & PPISR sign Memorandum of Understanding

DODDABALLAPUR,
DHNS: Manydifficult problems
in society can only be solved
through open discussion
and collaboration between
members of the scientific community with different expertise, said Gandhi Institute of
Technology and Management
(GITAM), Bengaluru Campus Pro Vice-Chancellor M S
Mohan Kumar.

He noted this while speaking after the GITAM Deemed to be University (Bengaluru Campus) and Poornaprajna Institute of Scientific Research (PPISR) signed a Memorandum of Understanding (MoU) to bring out quality research papers.

He advised the students of PPISR to register for PhD programme at GITAM in the future and write good research articles.

GITAM Registrar D Gunasekaran and PPISR Director Ananda B Halageri signed the MoU document.

Anand Halgeri spoke about the scientific achievements of PPISR and how it was able to do successful collaborative research projects with industries.

The agreement would help in carrying out scientific collaborations and joint research projects between the two organisations, he added.

GITAM Pro Vice-Chancellor (Academics) Jayasankar Variyar, Resident Director Vijay Gejji, Human Resource Head Sivakumar Raghavan, GITAM School of Science Principal Atul Kumar, and other faculty members of both organisations were present.



Prof. Dr. <u>Christof Wöll</u>, Institutional Director, Institute of Functional Interfaces, Karlsruhe Institute of Technology (KIT), Germany visited our institute on Dec 1, 2022.



Dr. C. S. Gopinath, Outstanding Scientist and Deputy Director, CSIR-National Chemical Laboratory (NCL), Pune visited our institute on December 20, 2022. He visited the reactor and analytical laboratory demos were shown during his visit. Then he delivered an invited talk on "Key Issues in Solar Water Splitting and Possible Approaches to Tackle Them" which was also broadcasted via on line (Google meet). He was pretty impressed with the campus which is amongst the midst of tranquil nature. According to him all the scientific

# **VISITOR'S VIEWS**

Dr. G. PARTHASARATHY, FAN, FRSC, FTAS. FISSA, Adjunct Professor, National Institute of Advanced Studies (03.03.22): Wonderful experience in having academic interactions with young faculties and enthusiastic students. May lord Krishna bless the young faculties, staff and students with many more success and productive years ahead. I am most grateful to Professor Dr. Anand Halgeri, Director for his kind invitation to the National Science Day celebrations. My warmest regards.

Dr. N RAMESH, Registrar, REVA University, Bengaluru (04.04.22): A great research institute doing yeoness services to the society through research activities. The involvement of all scholars is amazing under the blessings of Admar Mutt Foundation and the dynamic stewardship of Dr. Anand B. Halgeri sir. Kudos to PPISR. They deserve all encouragement. Warm Regards.

Dr. V. JAYATHIRTHA RAO, Emeritus Scientist and Hon. Professor AcSIR, CSIR-IICT, Hyderabad - 500007: Institute is located in a very nice place, which provides thought process. Students are energetic and involved in their work. The driving force is by the Hindu philosophy coming from visionaries. A fantastic place to work for many young researchers. Cool interactive environment is just superb.

**Dr. VADIRAJ S. G., Bengaluru:** Beautifully created State-of-the art facilities, having great resources. The leadership under able guidance of Dr. Anand B. Halgeri has huge potential to contribute to industry. Vachichem look forward to develop novel feelronzers and implement commercially.

Prof: VISHWESHWARA RAO, REVA University: Excellent research institute with great facilities for the research in the fields of Chemistry, Catalysis, Biology and the leadership driven by Prof. Anand Halgeri is an exemplary. The team for Chemistry and Biology has zeal towards high impact research which gives outcome in good impact publication and also great nation building through training best students.

Prof: N. D. HARIDASS, Former Director of PPISR and Retired Professor, INSTITUTE OF MATHEMATICS, Chennai: Once again it was a visit full of nostalgia and admiration for the enormous progress made at PPISR in all directions. Thanks to all and Dr. Anand Halgeri for a warm and touching welcome.

Dr. S. MURTHY SHEKHAR, Prof & Head, Chemical Engineering, Siddaganga Institute of Technology, Tumakuru: I visited PPISR for the first time. I really appreciate the research work going on in the campus and also the support and friendly environment of the campus. The research knowledge shared by the eminent scientists is really commandable and is needed for the upliftment of the society.

Dr. C.S. GOPINATH, Deputy Director and Outstanding Scientist, CSIR-National Chemical Laboratory, Pune: What a place to visit. PPISR in the midst of tranquil nature and I could smell fresh oxygen. All scientific programmes are focussed and faculties are young and energetic. Very glad to know the contributions to the industrial catalysis aspects. I wish many more such progress to PPISR with many able faculties. I have no doubt that PPISR will make a mark in science very soon. I wish PPISR all the very best.



# POORNAPRAJNA INSTITUTE



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