KATHAN

MONTHLY NEWSLETTER OF UPL UNIVERSITY OF SUSTAINABLE TECHNOLOGY

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Kathan

ज्ञानम् यजामहे ।

In this issue…

Editorial Message

Dear Readers,

The mother earth deserves our love and caring protection. We do not have another earth to set a second abode. If it is not for her, we wouldn't be able to thrive as human beings .It is our moral responsibility to maintain sustainability in our deeds and aspirations. The negative impact of human beings on the environment has been manipulated in climate changes, scarcity in water supply, energy crisis etc. These environmental issues affect every aspect of our existence. It is the need of the hour to spread awareness regarding the environmental impact on the earth and promote a harmonious existence.

Happy Reading
Kathan Editorial Committee

Industry Visits

Visit to Industrial Expo, Ankleshwar

Department of Electrical Engineering, SRICT & IE(I) Student Chapter Electrical Engineering have jointly coordinated a visit at Industrial Expo, Ankleshwar for 6th Semester Degree Engineering Students and faculty members of Electrical Engineering on 07/01/2022 with the objective to interact with the industry persons and to understand the advancement in the certain products related to industries. Students had a great exposure about the Industrial operations. The interactions among the Industrial persons and students were very informative and knowledge sharing. They also guided the students towards practical knowledge in terms of product understandings and suggested that they should select the areas like web development, mobile application development & software testing, Automation etc. for their future work.

Visit at Industrial Expo, Ankleshwar

Department of Computer Engineering of UPL University of Sustainable Technology organized an industrial visit to "Bharat Glass Tube Limited, Ankleshwar" for 1st sem Diploma and Degree Computer Engineering students on 06/01/2022. Students are able to deeply understand all processes involved in making glass using raw materials like Silica Sand,soda etc.Production of company is soda lime glass. By using magnesium oxide material glass products gets transparency. UPL University of Sustainable Technology is very much thankful to MR. Kaushik Singh (Manager-BGTL, Ankleshwar). Students gave very good feedback on the visit.

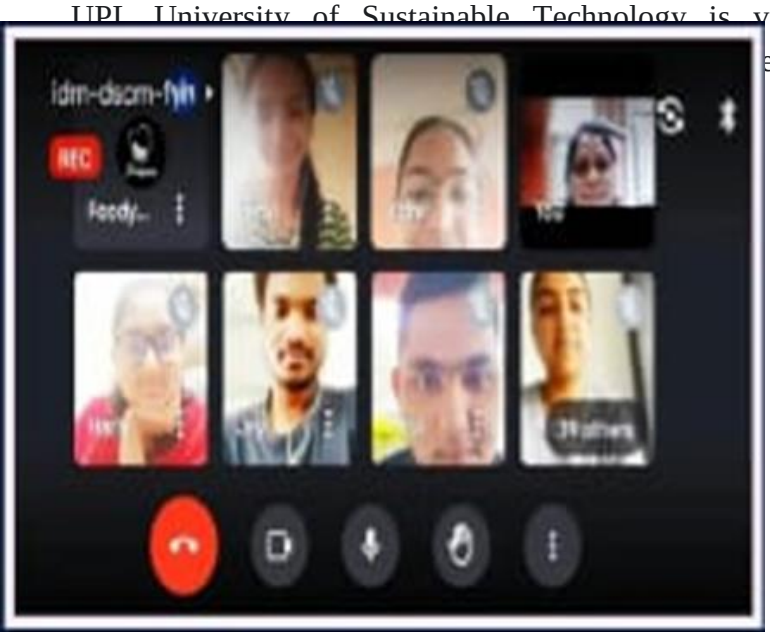
Mr.Kaushik Singh explained all procedure

Students observing glass making

Virtual Industrial Visit

Department of Computer Engineering of UPL University of Sustainable Technology organized a virtual industrial visit to **"J.P.Extrusiontech Pvt Ltd, Ankleshwar"** for 1st sem. Diploma and Degree Computer Engineering students on 22/01/2022 on Google Meet platform. Students were able to deeply understand all processes involved in general engineering subjects like working of different machineries involved in plastic processing machinary.J.P.E.L. Offer a wide range of machinery in every segment depending upon the need of the end product.

UPL University of Sustainable Technology is very much thankful to Ms. Puja Patkar (Manager-



Workshop for Diploma Engineering Students

The Department of Electrical Engineering of SRICT organized a Workshop on “Modern Power System Protection and Relaying” for the Diploma Electrical Engineering students on 08/01/2022 .This offline Workshop was delivered by Faculty members from Department of Electrical Engineering, SRICT.42 students of Diploma Electrical Engineering from Government Polytechnic Surat participated in this workshop. A demonstration of different protection schemes for Transformer, Transmission Lines, Induction Motor etc. were given to the students. The workshop was well appreciated by all participants. Another session of the workshop was delivered on 12/01/2022. 44 students of Diploma Electrical Engineering from Government Polytechnic, Surat participated in this session.

Power System Protection Workshop for Diploma Enginnering Students on 12th Jan 2022

ONE TO ONE MEETING :

One to one interaction with students have always been conducted at SRICT ,for not only the academic improvement of students but also for the purpose of building trust, providing support and receiving feedback/ suggestions. For the same purpose an interactive session was organised for the 1st semester Electrical Engineering students with Mr. Ashok Panjwani, President-UPL University on 05/01/2022. During the session, Dr. Snehal Lokhandwala, Dean Science and Sustainability-UPL University, Dr. Omprakash Mahadwad, Dean Engineering-UPL University, Dr. Jalpa Thakkar, Head-Electrical Engineering Department and Mr. Hiren Jariwala, Class teacher and Asst. Prof. Electrical Engineering were also present and discussed facilities provided, problems and difficulties faced by students. Students were motivated to improve their focus towards learning experiences and increase their study hours. Weaker students were also motivated to improve their performance in upcoming exams. Students appreciated the efforts taken by management for their academic growth.

One to One Meeting with Semester 1 Degree Electrical Engineering Students

Another One to One meeting was organized for students of Sem-1 Diploma Electrical Engineering with Mr. Ashok Panjwani, President, UPL University on 05/01/2022. During the session, Dr. Snehal Lokhandwala, Dean-Science and Sustainability, UPL University, Dr. Omprakash Mahadwad, Dean-Engineering, UPL University, Dr. Jalpa Thakkar Head-Electrical Engineering and Mr. Ankur Gheewala, Class Advisor and Assistant Professor, DEE were present in this meeting. Weaker students were motivated to improve their performance in upcoming exams.

One to One Meeting with Semester 1 Diploma Electrical Engineering Students

NPTEL Certificate Courses at UPL University of Sustainable Technology

In the digital age, it's clear that self-education is far easier than ever before. As we've seen since the start of the coronavirus pandemic, online learning can play a crucial role in education. It provides a flexible approach to study, as well as giving learners the chance to connect with educators no matter where in the world they are. So what is it that people like about the online learning format? The study found that there were several benefits that were consistently highlighted by those who took part, including:

- The ability to learn at your own pace.
- It's physically and financially accessible and gives those who are physically constrained access to high-quality education.
- It helps people develop their skills to meet personal and professional goals.
- It helps people stay informed, engaged, and mentally active.

UPL University of Sustainable Technology religiously believe in the above concept and to popularize it UPL University is pleased to felicitate our faculty & students for country-wide acclaimed approach towards self-learning, that is, education via NPTEL Certificate Courses. AICTE has approved several NPTEL courses which are available online. To create an environment of self-learning, ARES management declares the following cash prizes for successful completion of these courses for students as well as faculty members

Sr. No.	Type of Certificate	Cash Prize
1.	Gold Elite Certificate	Rs. 5000/-
2.	Elite Certificate	Rs. 3000/-
3.	Successfully Completed the course	Rs. 1500/-

Faculties and students should register in the courses and inform the NPTEL Coordinator. It will be appreciable if the faculty members motivate students for enrolment in NPTEL Courses.

Link of NPTEL Course List for Jan-June 2022

https://docs.google.com/spreadsheets/d/e/2PACX-1vSfmLJV0dIsmASfu7T177jbxI67HqN6PVdZqGiDQ1ZB59yY7sh4Ydy0g9mben7DmjiNIIsy9_NzdceV/pubhtml?urp=gmail_link&gxids=7628

For any query, please contact:

Ms. Richa Dubey,

NPTEL Coordinator,

UPL University of Sustainable Technology.

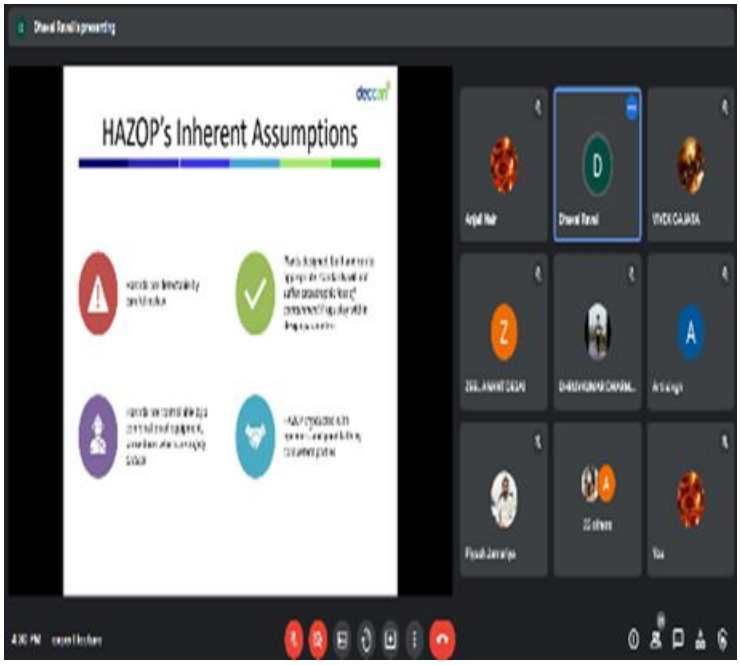
M: 9998037615, Email: richa.dubey@srict.in

EXPERT LECTURES

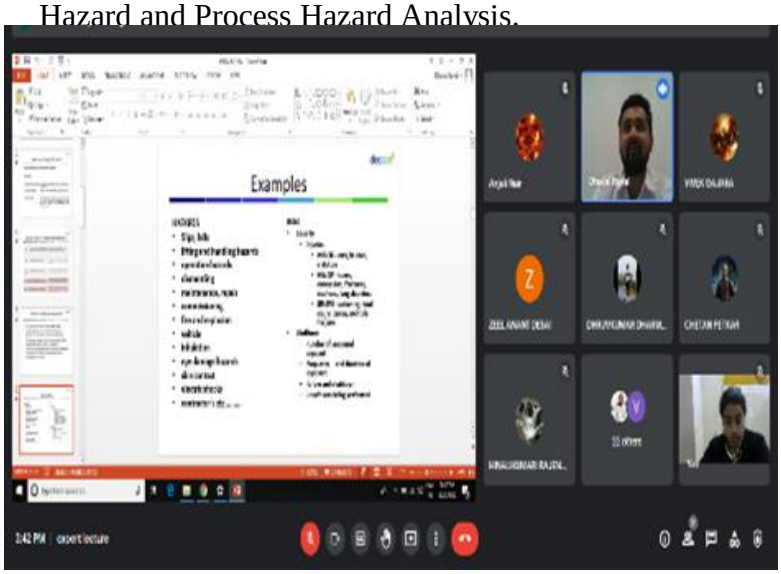
Fire Prevention & Protection

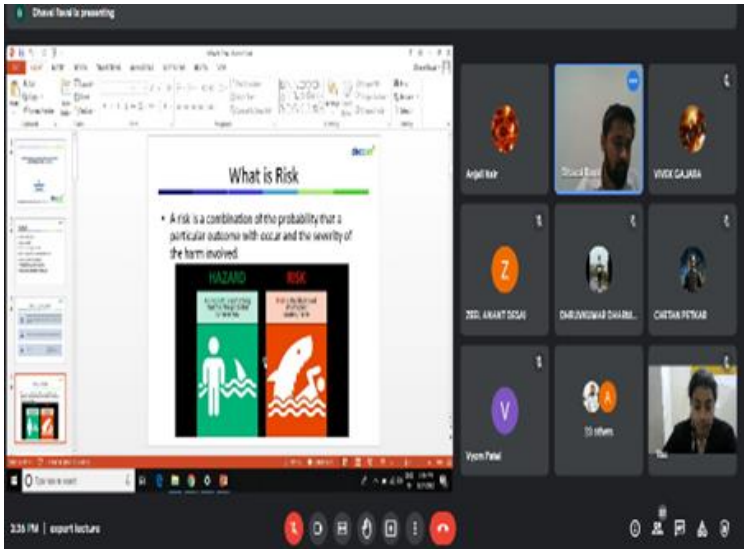
The Expert Lecture and demo on Fire Prevention & Protection was organized on 5/01/2022 and 11/01/2022. The Expert lecture was delivered by Mr. Shubham Shah (Safety Officer-BEIL) and co-ordinated by Dr. N. P. Badgujar (Associate Professor & Safety Coordinator at campus).Students of Ist Sem B.E. Chemical Engg. and CT/EST/ME/EE attended the session. The Fire safety demonstration was given by Mr. Dharmendra, Fireman, BEIL.

Department of Environmental Science and Technology & Institution of Engineers (IEI) students chapter (393135/SRIC/EN) jointly organized an expert lecture for students of M.E semester 1, 3 and B.E semester 4 on 27th January 2022 on topic “Control of Health Hazard". The session was delivered by Mr. Mehul Salokhe (EHS Manager, Deccan Fine Chemicals) and coordinated by Mrs. Anjali Nair under guidance of Dr. Pratibha Gautam (HOD, Environmental Science and Technology). Students were highly benefited and gained knowledge about HAZOP,HAZAN and Control of health hazards.



Another expert lecture for M.E semester 1 and 3 students on 27th January 2022 on topic “Hazard Identification Risk Assessment & PHA". The session was delivered by Mr. Dhavalkumar Raval (EHS Manager, Deccan Fine Chemicals) and coordinated by Mrs.Anjali Nair under guidance of Dr. Pratibha Gautam (HOD, Environmental Science and Technology). Students were highly benefited and gained knowledge about hazard, Risk, Types of Hazard and Process Hazard Analysis.



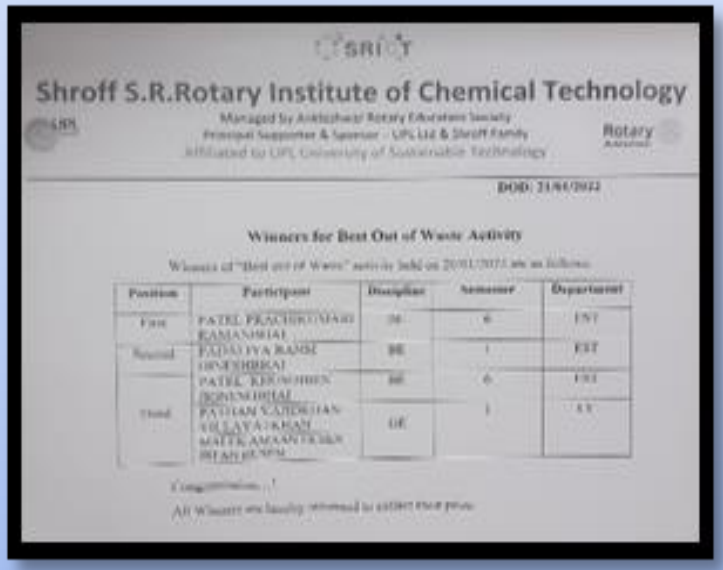


Department of Environmental Science and Technology & Institution of Engineers (IEI) students chapter (393135/SRIC/EN) jointly organized another expert lecture for M.E semester 1 and 3 students on 22nd January 2022 on topic “Zero Liquid Discharge". The session was delivered by Mr. Amit Thakkar (Scientist, CPCB) and coordinated by Mrs. Anjali Nair under guidance of Dr. Pratibha Gautam (HOD, Environmental Science and Technology). Students were highly benefited and gained knowledge about reverse osmosis, Biomethanization, ion exchange and zero liquid discharge.

Department of Environmental Science & Technology organized an Industrial visit for the sixth semester students on 17th January 2022 to Bharuch Enviro Infrastructure Ltd solid waste management facility at Dahej. Mr. Kunal Majumdar and Ms. Amishi Popat-Assistant Professors ESTD, accompanied students during the visit. Students visited Hazardous waste Landfilling site and technical aspects relating to the same were explained to them. They also got an opportunity to visit Solar panel constructed on a closed landfill site. Other auxiliary plants working for waste management such as waste stabilization, drum decontamination, MEE plant and RO facility were also explained to the students. The visit was coordinated by Mr. Kartik S under the guidance of Dr. Pratibha Gautam, Head Department of Environmental Science and Technology.

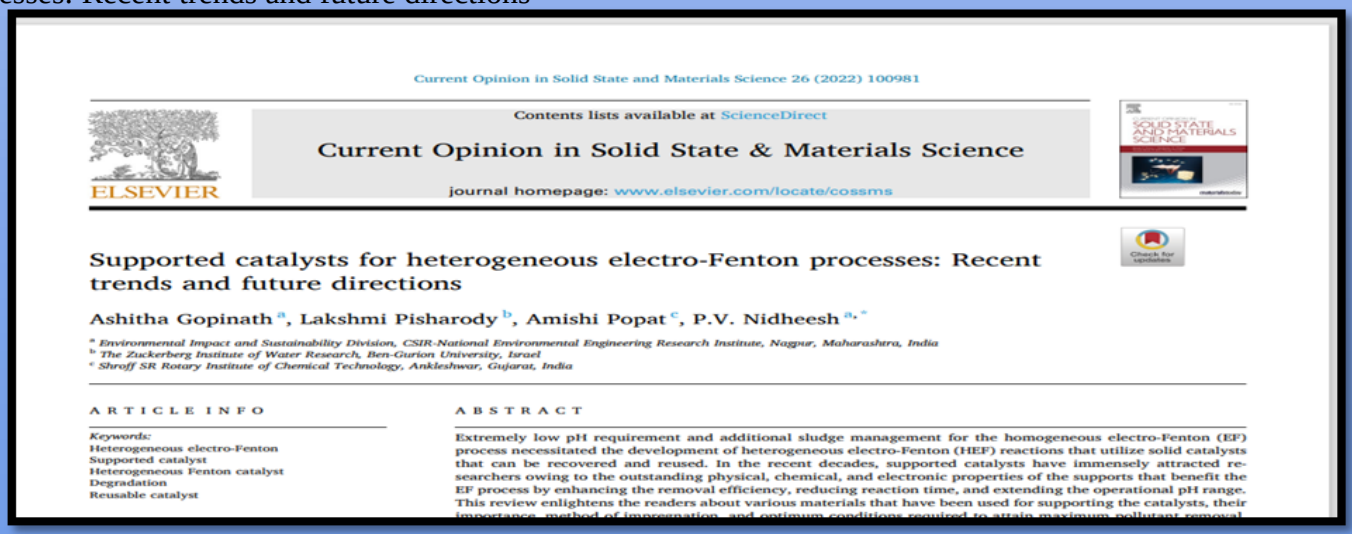
Best Out of Waste Competition

In order to highlight the importance of 3R's i.e. REDUCE, RECYCLE & REUSE for a better future, "Best Out of Waste" competition was scheduled on 22/01/2022.



FACULTY ACHIEVEMENT-Paper Publications

Name of Journal: Current Opinion in Solid State & materials Science,
Name of Author: Ms. Amishi Popat , **Impact factor: 11.35**
Topic of publication: Supported catalysts for heterogeneous electro-Fenton processes: Recent trends and future directions



Current Opinion in Solid State and Materials Science 26 (2022) 100981

Contents lists available at ScienceDirect

Current Opinion in Solid State & Materials Science

journal homepage: www.elsevier.com/locate/cossms

ELSEVIER

Supported catalysts for heterogeneous electro-Fenton processes: Recent trends and future directions

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ARTICLE INFO

Keywords:
Heterogeneous electro-Fenton
Supported catalyst
Heterogeneous Fenton catalyst
Degradation
Reusable catalyst

ABSTRACT

Extremely low pH requirement and additional sludge management for the homogeneous electro-Fenton (EF) process necessitated the development of heterogeneous electro-Fenton (HEF) reactions that utilize solid catalysts that can be recovered and reused. In the recent decades, supported catalysts have immensely attracted researchers owing to the outstanding physical, chemical, and electronic properties of the supports that benefit the EF process by enhancing the removal efficiency, reducing reaction time, and extending the operational pH range. This review enlightens the readers about various materials that have been used for supporting the catalysts, their importance, method of impregnation, and optimum conditions required to attain maximum pollutant removal

Name of Journal: Materials Today

Name of Author: Mr. Kartik Iyer

Impact factor: 26.42

Topic of publication: Sustainable technology for modern era effluent treatment: Microbial fuel cell

INTERNSHIP REVIEW

The Department of Environmental Science & Technology organized an Internship Review for the 8th semester students on 7/2/2022. Industry details, Project topic and work done during the initial phase of the internship were discussed during review. Students performed well in the review and various suggestions were given by faculty members to the students for improving their performance in the industry. The Internship review was coordinated by Ms. Bhasha Mehta (Assistant Professor-DEST) .

From WeNayak –The Training and Placement cell

WeNayak – Training and Placement cell of UPL University of Sustainable Technology conducted a mock interview for the students of Engineering (Batch 2018), M.Sc. (Batch 2020) students during 5th to – 8 th January-2022. An expert from the industry, Mr Pradip Gohil was invited to train the 100 registered students.

The expert assessed the technical and communication competence of the students and gave them individual and group feedback on their performances.

Students found it to be a good rehearsal for an actual job interview. It was treated as a part of placement related training and continuous assessment of the students during the course.

Special Effect Pigments

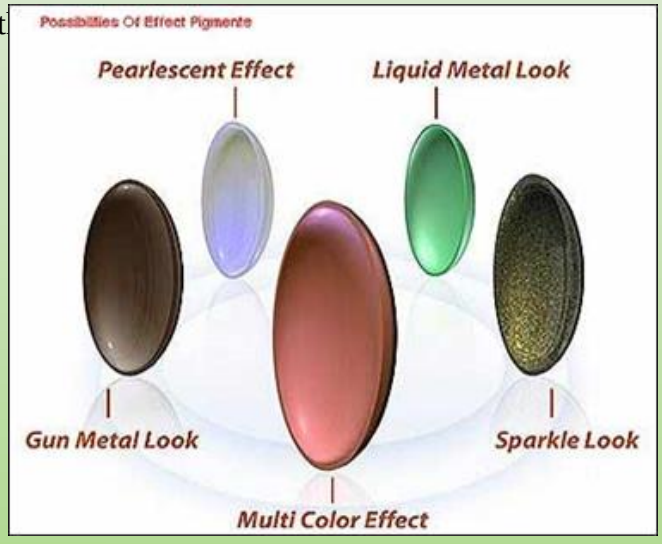
Dr. Nilesh. P. Badgujar

(Associate Professor-Dept. of Dyes & Pigments Tech. (CT)

Special Effect Pigments guarantee brilliant performances in various industries, mainly in the plastic processing, printing industry and the color and coating industry. They open up an infinite array of colors and effects that create unlimited design possibilities.

The oldest evidences that we have found about the use of Effect Pigments are the cave paintings (Ajanta). Today, a lot variety of effect pigments have come into existence in every aspects of our lives. By using the effect pigments, one can get access to many unique effects. These effects include the visual world effect with a decorative look, flickering lights and amazing effects. These pigments bring a new feeling and give new effect to the colors with sparkle and tremulousness.

Certain pigments are used to give special effects, rather than for t



An effect pigment can:

1. Display color travel.
2. Reflect or refract light.
3. Act as a mirror, (metal Flake).
4. Give multiple color effect (iridescence)

The pigment industry offers an extensive range of classical and effect pigments. Effect pigments are platelets with diameters mostly in between 5 and 50 microns. They reflect incident light and cause angle-dependant lightness effects. Additionally, the incoming light can be modified through absorption and/or interference effects. The high number of possible combinations of layers of different materials, and the variation of layer thicknesses make the the world of effect pigments rather complex. A classification according to coloristic properties provides an overview. Effect pigments can be transparent, semitransparent or opaque in nature.

Figure 1/Classification scheme of effect pigments according opacity and optical impression.

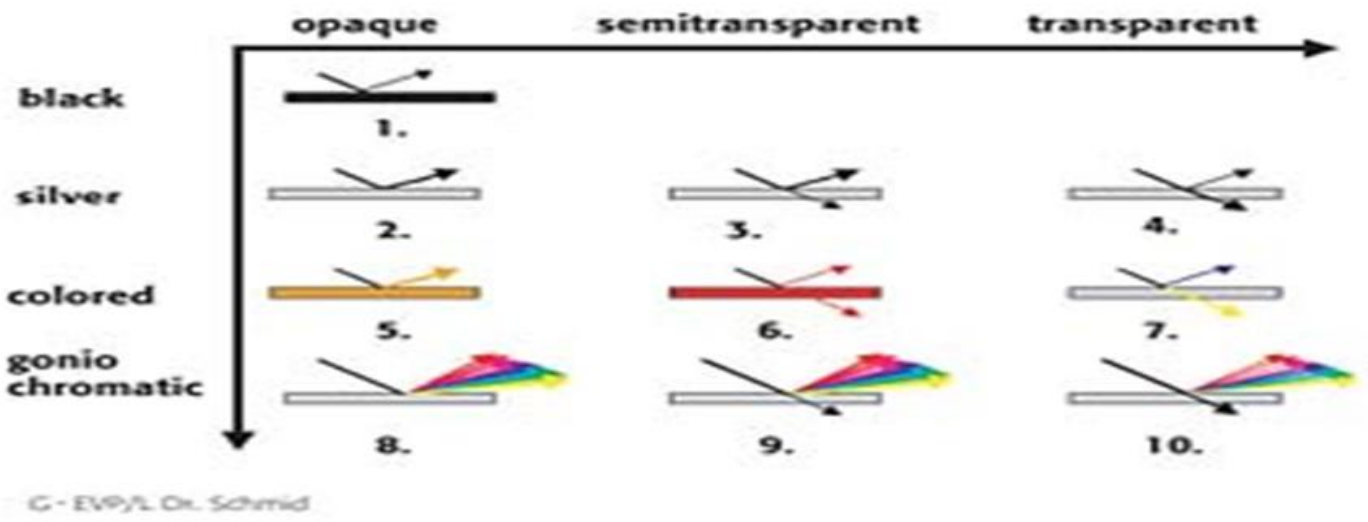


Figure illustrates the various optical principles of conventional pigments (A) (absorption pigments), metal effect pigments (B), and pearls (C) and pearl luster pigments (D), the most important group of special effect pigments.

Absorption: All the conventional organic or inorganic color pigments come in this category. In the case of absorption pigments, the interaction with light is based upon absorption and/or diffuse scattering of particular wavelength of the incoming light. These pigments don't produce any lustre, because of their irregular shapes.

A completely different optical behavior can be observed with the group of effect pigments including pearl luster and metal effect pigments.

Metallic effect: Metallic Pigments comprise of very small platelets of aluminum, copper, zinc, titanium, which operate like little mirrors and almost completely reflect the incident light. The formation and differentiation of opaque pigments are possible due to these metallic pigments on the basis of the surface lustre.

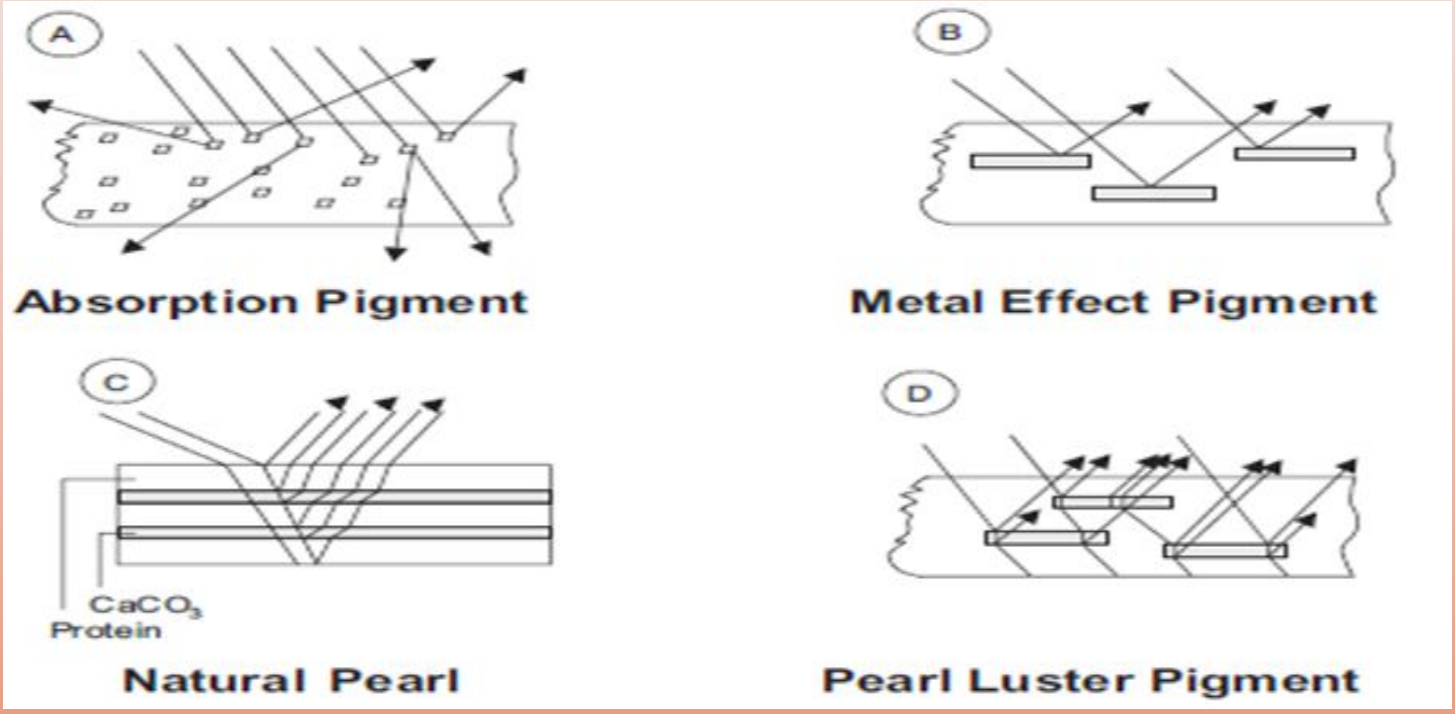
Pearl Lustre: Pearl luster pigments simulate the luster of natural pearls. They consist of alternating transparent layers with differing refractive indices. The layers consist of CaCO3 (high refractive index) and proteins (low refractive index).

Pearl Lustre Pigments are suitable to be used in almost all of the printing inks. They are semi-transparent. These pigments are based on guanine or bismuth oxychloride, mica minerals. In these pigments, the light reflects in between the different layers of the pigments. This phenomena makes these pigments very lustre.

The special effect pigments may bring a metallic look into plastic materials. These are lamellar flakes. The very thin platelets of special effect pigments can be readily obtained due to their shapes. On the basic of transparent and opaque effects of the effective pigments, they can be classified into two more groups:

Transparent Pigment: The platelets of Transparent Pigments can partly transmit light and for this phenomena these pigments can produce a special kind of shimmery luster. The refractive index of these platelets is low. The figure describes the light mechanism of Transparent Pigments. Transparent Effect Pigments have affinity with almost all thermoplastics.

Opaque Pigments: The platelets of the opaque pigments don't transmit light. These platelets only reflect the light and during reflection they also absorb light partially.



Mr. Arghya Chakraborty

(Lecturer - Diploma-Engineering)

A Corpse

Everyone is looking at a corpse, lying on the middle of the street.

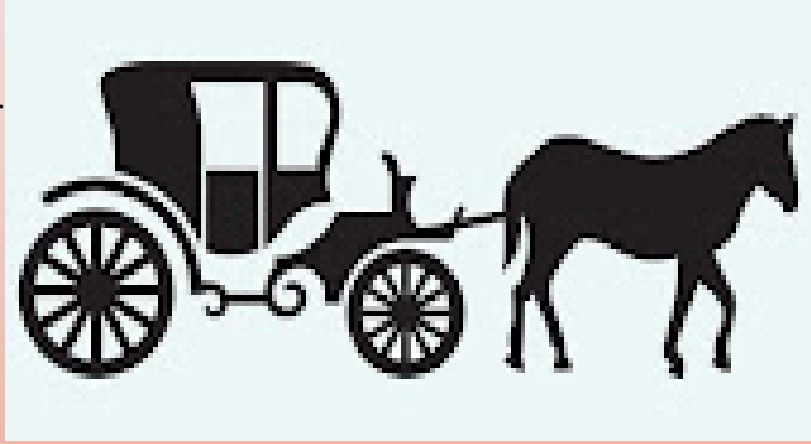
Passers-by giving a look at it, waiting for it to be carried away.

They started imagining, may be the corpse could also imagine.

The corpse is imagining a world left for him after his death,

A world full of darkness, a world that is uncertain,

A world that is cold and that lies underneath the Earth.



He sees from underneath

The white shroud,

The green paddy field is reciprocating

'Good-Bye' to him.

The birds and flowers are shaking their heads

To welcome him in the 'Eternal World'

Of darkness.

They are reminding him their presence in the guise of

Worms and Mollusc…

Suddenly, an uncertain thought

Impaled his mind.

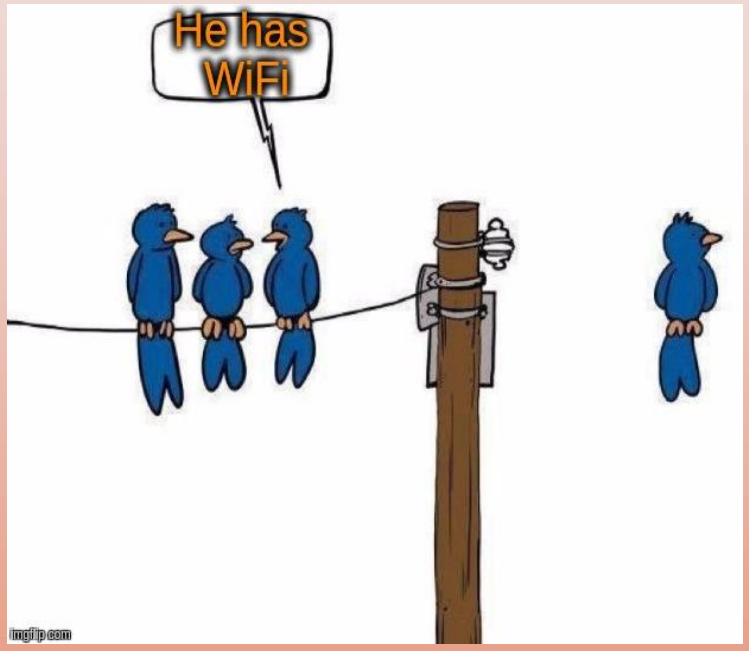
The mark of vermilion reminds him

Of someone's company and affection.

Where is that love? He lost it.

Where is that mark of vermilion? He rubbed it.

---*(Written by Mr. Arghya Chakraborty).*



Compiled by Poojan Mehta from - https://www.cartoonstock.com/

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