KURSUS WAJIB DS45

Ceramah 1 : Perundingan dan Khidmat Masyarakat

Prof Dr Ghazali Omar

Perundingan

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Definasi Perundingan

Satu kegiatan yang melibatkan seseorang atau sekumpulan orang untuk memberi perkhidmatan kepakaran atau kemahiran kepada pihak yang memerlukan, sama ada dengan mendapat bayaran atau tanpa bayaran.

Kegiatan Perundingan

Perundingan di antara Universiti dengan pelanggan dengan bayaran (kontrak institusi dengan bayaran);

Perundingan di antara staf Universiti dengan pelanggan dengan bayaran (kontrak persendirian dengan bayaran).

Aktiviti Perundingan

Kajian oleh Pakar-Pakar Universiti untuk melaksanakan keperluan terma rujukan pelanggan.

Penyelidikan Kontrak.

Perkhidmatan Nasihat Pakar.

Perkhidmatan Latihan Akademik dan Teknikal.

Perkhidmatan Pengurusan Kemudahan.

Contoh Perundingan

Takrif Perundingan

"Kerja Perundingan" merujuk aktiviti khidmat perundingan yang dibayar mengikut terma yang ditetapkan oleh pihak klien. Khidmat perundingan meliputi khidmat nasihat, latihan dan uji bahan.

"Kajian/Projek Perundingan" bermakna satu aktiviti perundingan yang berdaftar dengan UPUM/Kementerian Kewangan/Badan Profesional dan diberikan satu nombor rujukan khusus. Kadar bayaran, terma, jangkamasa kerja dan perunding-perunding dinyatakan dengan jelas bagi setiap projek.

Kepentingan Perundingan

Perundingan adalah salah satu fungsi asas Universiti, iaitu memberi perkhidmatan kepada masyarakat.

Kegiatan perundingan merupakan sebahagian bidang tugas staf akademik dan dinilai dalam prestasi tahunan.

Memberi khidmat kepakaran dan nasihat kepada industri, masyarakat dan negara.

Kepentingan Perundingan

Memberi peluang pada staf akademik untuk menambah pendapatan disamping menjana dana tambahan untuk Universiti.

Memberi khidmat kemudahan peralatan yang terdapat di Universiti kepada industri-industri.

Sebahagian daripada tanggungjawab sosial.

Kebenaran Perundingan

Setiap staf perlu mendapat kebenaran rasmi (Borang Kebenaran Menjalankan Kerja Perundingan) daripada Ketua Jabatan/Ketua PTj untuk menjalankan kerja perundingan.

Semua kerja perundingan diwajibkan melalui UTeM termasuk kerja-kerja perundingan yang diperolehi oleh staf itu sendiri.

Kebenaran Perundingan

Sebarang cadangan kerja perundingan yang diperolehi oleh staf secara persendirian hendaklah dirujuk kepada UTeM secepat mungkin, iaitu sebelum penyerahan cadangan kepada klien. Ini bertujuan memastikan kertas cadangan disediakan dengan kemas dan perundingan dengan klien dijalankan secara sistematik dan profesional.

Kelulusan Permohonan

Kerja perundingan tidak akan menjejaskan tugas pengajaran dan tugas-tugas rasmi lain.

Kerja perundingan tersebut memberi faedah dalam bentuk peningkatan ilmu dan pengalaman kepada staf dalam bidang pengkhususannya.

Tempoh keseluruhan kerja perundingan hendaklah tidak melebihi tempoh maksimum yang dibenarkan bagi setiap staf, iaitu empat (4) bulan-kerja (man-month) bagi satu tahun kalendar. UTeM akan menyimpan rekod kerja perundingan setiap staf.

Program Khidmat Masyarakat

Prof Dr Ghazali Omar

Konsep Khidmat Masyarakat

- merujuk kepada langkah-langkah kerajaan melalui agensi-agensinya dalam usaha menawarkan perkhidmatan asas bagi memenuhi keperluan golongan majoriti untuk meningkatkan taraf hidup mereka
- membantu atau mencegah segala tekanan sosial yang dialami dalam mana-mana individu, keluarga mahu pun masyarakat dengan menghubungkannya kepada agensi-agensi yang berkaitan
- teras profesion kerja sosial ialah kesediaannya untuk melibatkan diri dalam memenuhi kehendak manusia
- kerja sosial ialah satu kaedah pelaksanaan yang dapat membantu individu perseorangan atau kolektif menyelesaikan masalahnya
- kerja sosial adalah satu bentuk aktiviti manusia dimana ahli-ahli dalam sesebuah masyarakat tertentu samada dibayar atau sukarela membantu dalam kehidupan individu lain untuk menghasilkan perubahan kepadanya

Contoh Khidmat Masyarakat




Objektif Program

1. Mempromosi Universiti kepada masyarakat awam dan global
2. Mengimplementasi tanggung jawab sosial Universiti kepada masyarakat
3. Sebagai projek outreach kepada komuniti dan bagi memperbaiki taraf hidup masyarakat.
4. Membiasakan staf dan mahasiswa dengan aktiviti khidmat masyarakat
5. Menggalakkan usaha-usaha berimpak tinggi untuk pembangunan komuniti dan stake holders.

Implikasi Khidmat Masyarakat

- Aktiviti khidmat masyarakat yang dijalankan secara bersama akan mewujudkan rasa persefahaman dan pengukuhan jati diri di dalam sesuatu kumpulan.
- Aktiviti yang dirancang dengan baik akan memberikan impak kesihatan diri dari segi fizikal dan rohani.
- Aktiviti yang dilaksanakan secara bersama dalam sebuah komuniti berbilang kaum akanmemberikan impak toleransi dan ikatan perpaduan yang lebih utuh.
- Mewujudkan rasa bertimbang rasa dan menyayangi orang lain khususnya yang kurang upaya serta warga tua.
- Aktiviti khidmat masyarakat dalam bentuk gotong royong akan mengurangkan kos pelaksanaan.
- Mewujudkan rasa kejiranan dan persefahaman yang lebih dalam kalangan masyarakat disesuatu kawasan kejiranan.
- Melahirkan warganegara yang berjiwa besar, patriotik dan sayang akan negara di mana tempat tumpah darah mereka

Petikan dari Berita Harian

- Sudah sampai masanya usaha seperti ini dijenamakan semula dalam kerangka yang berfokus, bersistematik dan berstrategi dengan bimbingan pakar dan mereka yang mempunyai minat mendalam seperti YSS yang diteraju Zuraidah, bukan hanya diserahkan kepada mahasiswa semata- mata.
- Aktiviti sukarelawan seperti ini banyak manfaatnya dengan memberi pendedahan baharu serta mengajar anak muda lebih bersyukur dan keluar dari zon selesa.
- Universiti juga secara bersama perlu mendokumentasikan usaha yang dilakukan selama ini dan membuat refleksi untuk memperkasakannya semula sebagai kebanggaan, termasuk menggembleng kekuatan bersama dengan mensinergikan kepakaran dan dapatan penyelidikan, pemindahan ilmu dan teknologi serta kreativiti dan inovasi untuk bergerak ke hadapan.

Selanjutnya di : http://www.bharian.com.my/node/16218

Thank You

EFGO Scientific SDN. BHD.

FA REPORT FOR AUTOMOTIVE LIGHTING

EFGO SCIENTIFIC SDN. BHD. (832883-H)

NO. 147, 1st FLOOR, PERSIARAN 3, TAMAN KULIM AVENUE,
KULIM HI-TECH, 09000 KULIM, KEDAH

604-4080101 www.efgoscientific.com

Requestor	: Mr Arif
Person In Charge	: Dr Kee
Report	: Juriah
Approved by	: Prof Dr Ghazali Omar
Report No	: R201601001
Date	: 04/01/2016

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Result Summary

1. Three different analysis techniques was used to analyze the opacity of glass that are
   1. SEM – to localize the problematic area
   2. EDX – to elementally detect the presence of unwanted elements
   3. XPS – to check organic and inorganic on the near surface
2. SEM have shown that there are many black spot on the lens and 3 different locations were imaged and further sent for EDX analysis
3. The EDX shows that all 3 spots has the element of sodium as traces elements
4. The surface analysis using XPS was deployed on black spot and compared with the good area. The result is consistent with the EDX analysis that sodium was found on the black spot but not on good spot
5. It is concluded that sodium is reacted with silica to form sodium silicate. Sodium silicate has degree of opacity (not transparent) that block the light passing thru the glass
6. Please read the literature as shown in Appendix A

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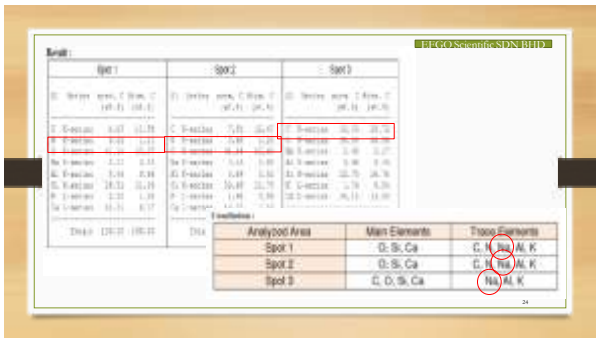

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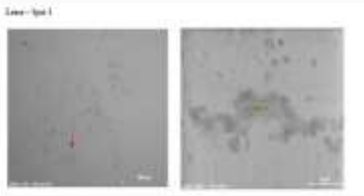
SEM image analysis on the lens



Many black spot

Magnification of black spot and EDX point of interest

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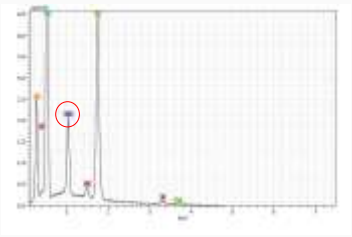

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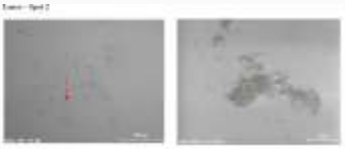
SEM image analysis on the lens



Many black spot

Magnification of black spot and EDX point of interest

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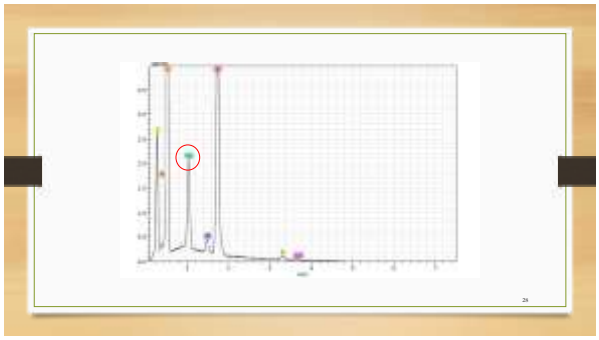
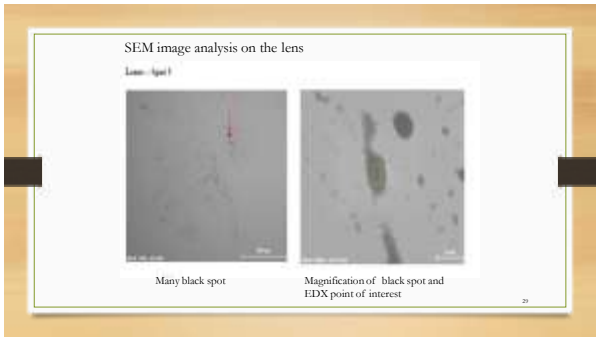


SEM image analysis on the lens



Many black spot

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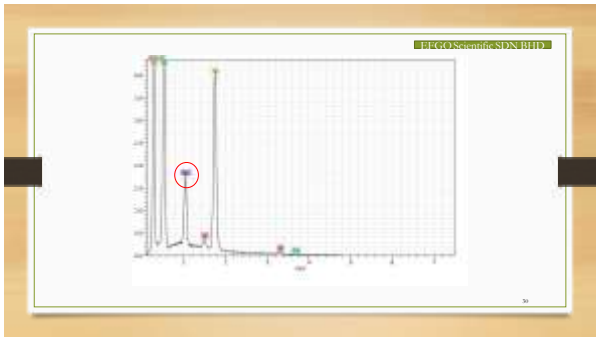

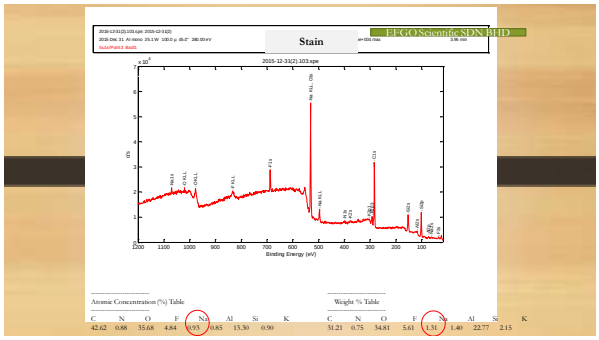

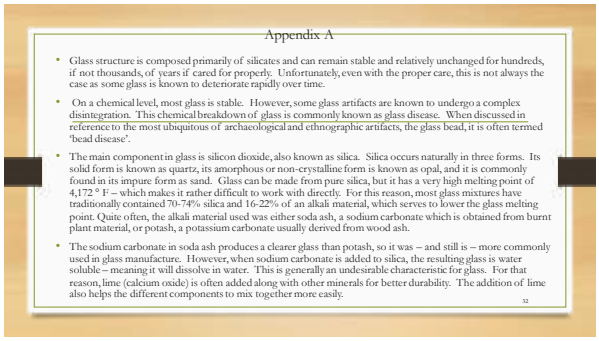

Appendix A

- Glass structure is composed primarily of silicates and can remain stable and relatively unchanged for hundreds, if not thousands, of years if cared for properly. Unfortunately, even with the proper care, this is not always the case as some glass is known to deteriorate rapidly over time.
- On a chemical level, most glass is stable. However, some glass artifacts are known to undergo a complex disintegration. This chemical breakdown of glass is commonly known as glass disease. When discussed in reference to the most ubiquitous of archaeological and ethnographic artifacts, the glass bead, it is often termed 'bead disease'.
- The main component in glass is silicon dioxide, also known as silica. Silica occurs naturally in three forms. Its solid form is known as quartz, its amorphous or non-crystalline form is known as opal, and it is commonly found in its impure form as sand. Glass can be made from pure silica, but it has a very high melting point of 4,172 ° F – which makes it rather difficult to work with directly. For this reason, most glass mixtures have traditionally contained 70-74% silica and 16-22% of an alkali material, which serves to lower the glass melting point. Quite often, the alkali material used was either soda ash, a sodium carbonate which is obtained from burnt plant material, or potash, a potassium carbonate usually derived from wood ash.
- The sodium carbonate in soda ash produces a clearer glass than potash, so it was – and still is – more commonly used in glass manufacture. However, when sodium carbonate is added to silica, the resulting glass is water soluble – meaning it will dissolve in water. This is generally an undesirable characteristic for glass. For that reason, lime (calcium oxide) is often added along with other minerals for better durability. The addition of lime also helps the different components to mix together more easily.

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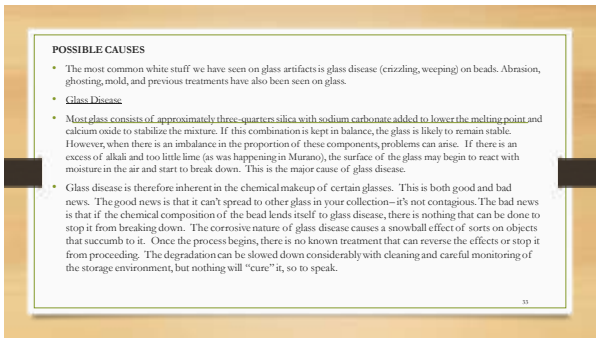

POSSIBLE CAUSES

- The most common white stuff we have seen on glass artifacts is glass disease (crizzling, weeping) on beads. Abrasion, ghosting, mold, and previous treatments have also been seen on glass.
- Glass Disease
- Most glass consists of approximately three-quarters silica with sodium carbonate added to lower the melting point and calcium oxide to stabilize the mixture. If this combination is kept in balance, the glass is likely to remain stable. However, when there is an imbalance in the proportion of these components, problems can arise. If there is an excess of alkali and too little lime (as was happening in Murano), the surface of the glass may begin to react with moisture in the air and start to break down. This is the major cause of glass disease.
- Glass disease is therefore inherent in the chemical makeup of certain glasses. This is both good and bad news. The good news is that it can't spread to other glass in your collection – it's not contagious. The bad news is that if the chemical composition of the bead lends itself to glass disease, there is nothing that can be done to stop it from breaking down. The corrosive nature of glass disease causes a snowball effect of sorts on objects that succumb to it. Once the process begins, there is no known treatment that can reverse the effects or stop it from proceeding. The degradation can be slowed down considerably with cleaning and careful monitoring of the storage environment, but nothing will "cure" it, so to speak.

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- At the present time, it is not fully understood how this decomposition of glass proceeds on a molecular level. However, we do know that in all glass the sodium and potassium carbonates are hygroscopic. This means that they readily take up and retain moisture from the air. Once these salts become hydrated, they can leach out of the glass and form crusty deposits on the surface.
- As the sodium and potassium ions are removed from the chemical structure they are replaced by hydrogen ions, which diffuse throughout the glass. This creates a hydrated silica network which is inherently weaker. As the deterioration of the glass progresses, the surface of the glass becomes increasingly alkaline. An alkaline substance is one the measures above 7 on the pH scale.
- A bead with glass disease will show many symptoms, some of which can be seen easily and others that may require the use of a magnifying lens or microscope. There are five signs of glass disease which are commonly cited by conservators. These are: broken beads, sweating or weeping beads, white crusty deposits, crizzling, and damage to the backing material. Additionally, as glass begins to deteriorate, it will quite often have a dull, foggy appearance. This results from deposits left on the surface of the glass, as well as crizzling altering the reflectivity of the glass.
- In certain environments, droplets of moisture may appear on the surface of a glass bead. This is known as sweating or weeping. This occurs when atmospheric moisture combines with the alkali material used in the manufacture of the glass and causes the hygroscopic alkali salts leech out. These salts migrate to the surface forming a soapy, sticky alkaline solution. This soapy residue forms abrasive and caustic by-products, which draws dust and dirt to the surface. This in turn attracts more moisture to the glass and facilitates the progression of the glass bead deterioration. Glass beads may have a white, fuzzy look to them as salts from these residues crystallize, as well as from the dust and dirt attracted to the soapy alkaline residue.

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- Unstable glass and high humidity can also result in the formation of crusty deposits on the surface of beads. As discussed earlier, alkaline products that migrate out of the beads turn into alkaline salts, which are left on the surface of the bead or adjacent material. This produces a hard alkaline coating which can give glass a white, dusty appearance.
- As the deterioration of unstable glass progress, small fissures in the surface of the glass start to become visible. This is known as crizzling and it is characterized by a fine all-over cracking or fracturing of glass. This step in the degradation of the glass can also lead to flaking and pitting on the surface of the bead. Crizzling of the glass surface can cause transparent beads to look opaque and also contributes to the appearance of a whitish haze.
- It is not known for sure whether or not glass disease occurs in some colors and/or sizes of beads more than others, but our experience through this survey of Alaskan beads is that it might.

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