UNIVERSITI TEKNOLOGI MARA

Faktor Pemangkin Kepada Prestasi Ahli Akademik Dan Penyelidik Menerbitkan Bahan Ilmiah Berunsur Islam ke Arah Membudayakan Sikap Membaca kepada Masyarakat Malaysia: Satu Kajian Kes di Negeri Sepuluh [Max 10 baris]

**Mohd Zuli bin Jaafar bin Daud (MAX 2 baris)**

Choose an item.

Disember 2025

UNIVERSITI TEKNOLOGI MARA

Faktor Pemangkin Kepada Prestasi Ahli Akademik Dan Penyelidik Menerbitkan Bahan Ilmiah Berunsur Islam ke Arah Membudayakan Sikap Membaca kepada Masyarakat Malaysia: Satu Kajian Kes di Negeri Sepuluh [Max 10 baris]

Mohd Zuli bin Jaafar bin Daud (MAX 2 baris)

Tesis dikemukan bagi memenuhi
keperluan untuk ijazah

Sarjana

(Pengurusan dan Kepimpinan)

Akademi Pengajian Islam Kontemporari

Disember 2025

PENGESAHAN OLEH PANEL PEMERIKSA

Saya sahkan bahawa Panel Pemeriksa yang telah bermesyuarat pada 15 Jun 2017 untuk mengendalikan peperiksaan akhir Mohd Zuli bin Jaafar bin Daud (MAX 2 baris)bagi tesis Sarjana yang bertajuk “Faktor Pemangkin Kepada Prestasi Ahli Akademik Dan Penyelidik Menerbitkan Bahan Ilmiah Berunsur Islam ke Arah Membudayakan Sikap Membaca kepada Masyarakat Malaysia: Satu Kajian Kes di Negeri Sepuluh [Max 10 baris]” berdasarkan Akta Universiti Teknologi MARA 1976 (Akta 173). Panel Pemeriksa telah mencadangkan pelajar tersebut layak dianugerahkan ijazah yang tersebut. Panel Pemeriksa adalah seperti berikut

|  |  |
| --- | --- |
| Ahmad Hamdan Abdullah, PhD |  |
| Profesor |  |
| Akademi Pengajian Islam KontemporariUniversiti Teknologi MARA |
| (Pengerusi) |  |
|  |  |
|  |  |
| Mohd Adri Izzat Hamdan, PhD |  |
| Profesor Madya |  |
| Akademi Pengajian Islam KontemporariUniversiti Teknologi MARA |
| (Pemeriksa Dalam) |  |
|  |  |
|  |  |
| Sazali Ahmed, PhD |  |
| Associate Professor |  |
| Fakulti Pengajian IslamUniversiti of ABC |
| (Pemeriksa Dalam) |  |
|  |  |
|  |  |
| Najahuddin Ahmad, PhD |  |
| Professor |  |
| Fakulti Pengajian IslamUniversiti of XYZ |
| (Pemeriksa Luar) |  |
|  |  |
|  |  |
|  | PROF. IR. DR. ZUHAINA BINTI HAJI ZAKARIADekanInstitut Pengajian SiswazahUniversiti Teknologi MARA |
|  | Tarikh: 10 April 2019 |

DEKLARASI PENULIS

Saya mengakui bahawa penghasilan tesis ini dilakukan mengikut peraturan Universiti Teknologi MARA. Ia adalah asli dan dapatan hasil usaha saya sendiri, melainkan dinyatakan sebaliknya atau diberikan penghargaan sebagai hasil rujukan. Tesis ini tidak pernah diserahkan kepada mana-mana institusi akademik atau bukan akademik untuk apa-apa ijazah atau kelayakan.

Saya, dengan ini, menyatakan bahawa saya telah mengikuti Kaedah dan Peraturan Akademik bagi Pasca Siswazah, Universiti Teknologi MARA, sepanjang melakukan pengajian dan penyelidikan saya.

|  |  |  |
| --- | --- | --- |
| Nama Pelajar | :  | Mohd Zuli bin Jaafar bin Daud (MAX 2 baris) |
| No. Pelajar  | :  | 2014202020 |
| Program  | : | Sarjana Pengurusan Wakaf dan Zakat – AP780 |
| Fakulti  | :  | Akademi Pengajian Islam Kontemporari |
| Choose an item. | :  | Faktor Pemangkin Kepada Prestasi Ahli Akademik Dan Penyelidik Menerbitkan Bahan Ilmiah Berunsur Islam ke Arah Membudayakan Sikap Membaca kepada Masyarakat Malaysia: Satu Kajian Kes di Negeri Sepuluh [Max 10 baris] |
|  |  |  |
| Tandatangan Pelajar | :  | …………………………………………….. |
| Tarikh  | :  |  |

ABSTRAK

Video provides a powerful way to help you prove your point. When you click Online Video, you can paste in the embed code for the video you want to add. You can also type a keyword to search online for the video that best fits your document. To make your document look professionally produced, Word provides header, footer, cover page, and text box designs that complement each other. For example, you can add a matching cover page, header, and sidebar. Click Insert and then choose the elements you want from the different galleries. Themes and styles also help keep your document coordinated. When you click Design and choose a new Theme, the pictures, charts, and SmartArt graphics change to match your new theme. When you apply styles, your headings change to match the new theme. Save time in Word with new buttons that show up where you need them. To change the way a picture fits in your document, click it and a button for layout options appears next to it. When you work on a table, click where you want to add a row or a column, and then click the plus sign. Reading is easier, too, in the new Reading view. You can collapse parts of the document and focus on the text you want. If you need to stop reading before you reach the end, Word remembers where you left off - even on another device. Video provides a powerful way to help you prove your point. When you click Online Video, you can paste in the embed code for the video you want to add. You can also type a keyword to search online for the video that best fits your document. To make your document look professionally produced, Word provides header, footer, cover page, and text box designs that complement each other. For example, you can add a matching cover page, header, and sidebar.

*--please delete--*

*Note:*

*Master – minimum 200 words*

*PhD – minimum 250 words*

*Limit to one (1) page only*

*No Paragraph*

*Font: Times New Roman - 12*

PENGHARGAAN

Firstly, I wish to thank God for giving me the opportunity to embark on my PhD and for completing this long and challenging journey successfully. My gratitude and thanks go to my supervisor Assoc Prof Datuk.

My appreciation goes to the Captain and crewmembers of the MMC who provided the facilities and assistance during sampling. Special thanks to my colleagues and friends for helping me with this project.

Finally, this thesis is dedicated to the loving memory of my very dear late father and mother for the vision and determination to educate me. This piece of victory is dedicated to both of you. Alhamdulilah.

*--please delete--*

*Must include all supervisors names*

*Limit to one (1) page only*

*Font: Times New Roman - 12*

ISI KANDUNGAN

|  |  |
| --- | --- |
|  | Muka Surat |

[PENGESAHAN OLEH PANEL PEMERIKSA i](#_Toc57797098)

[DEKLARASI PENULIS i](#_Toc57797099)

[ABSTRAK i](#_Toc57797100)

[PENGHARGAAN i](#_Toc57797101)

[ISI KANDUNGAN i](#_Toc57797102)

[SENARAI JADUAL i](#_Toc57797103)

[SENARAI RAJAH i](#_Toc57797104)

[SENARAI SIMBOL i](#_Toc57797105)

[SENARAI SINGKATAN i](#_Toc57797106)

[JADUAL TRANSLITERASI i](#_Toc57797107)

[BAB 1 PENGENALAN 1](#_Toc57797108)

[1.1 Latar Belakang Penyelidikan 1](#_Toc57797109)

[1.2 Motivasi 1](#_Toc57797110)

[1.3 Penyataan Masalah 1](#_Toc57797111)

[1.4 Objektif 1](#_Toc57797112)

[1.5 Kepentingan Kajian 1](#_Toc57797113)

[1.6 Contoh Jadual 1](#_Toc57797114)

[BAB 2 SOROTAN LITERATUR 1](#_Toc57797115)

[2.1 Introduction 1](#_Toc57797116)

[2.1.1 Data Pre-Processing and Data Drift: The Utility of Principal Component Analysis, Self-Organizing Maps and Class Separation Indices 1](#_Toc57797117)

[2.1.2 Multivariate Linear Regression 1](#_Toc57797118)

[2.2 Environmental Studies 1](#_Toc57797119)

[2.2.1 Airborne Particulate Matter Datasets 1](#_Toc57797120)

[2.2.2 Meteorological Dataset 1](#_Toc57797121)

[2.2.2.1 Data Pre-Processing and Data Drift 1](#_Toc57797122)

[2.3 Quantitative Structure Activity Relationships Studies on the Active and Inactive Antimalarial Compounds 1](#_Toc57797123)

[BAB 3 KAEDAH PENYELIDIKAN 1](#_Toc57797124)

[3.1 Introduction 1](#_Toc57797125)

[3.2 Data Pre-Processing for Classifcation 1](#_Toc57797126)

[3.2.1 Individual Transformation 1](#_Toc57797127)

[3.2.2 Row Scaling 1](#_Toc57797128)

[3.2.3 Column Scaling 1](#_Toc57797129)

[3.3 Exploratory Data Analysis Principal Component Analysis 1](#_Toc57797130)

[3.4 Quantitative Structure Activity Relationships Studies on The Active and Inactive Antibacterial Compounds 1](#_Toc57797131)

[BAB 4 DAPATAN DAN PERBINCANGAN BERKENAAN KAJIAN LAPANGAN DAN KAJIAN AWALAN DI MENARA GADING 1](#_Toc57797132)

[4.1 Introduction 1](#_Toc57797133)

[4.2 Chemometrics 1](#_Toc57797134)

[4.3 PCA and PLS 1](#_Toc57797135)

[RUJUKAN 1](#_Toc57797136)

[APENDIK 1](#_Toc57797137)

[PROFIL PENULIS 1](#_Toc57797138)

SENARAI JADUAL

| Jadual | Tajuk | Muka Surat |

[Jadual 1.1 Maklumat Statistik Set Data APM 1](#_Toc57796865)

[Jadual 1.2 Tajuk untuk Jadual Ini Di Sini 1](#_Toc57796866)

[Jadual 1.3 Contoh Jadual dengan Lebih Daripada Satu Item Halaman Portrait 1](#_Toc57796867)

[Jadual 1.4 Contoh Jadual dengan Lebih Daripada Satu Item Halaman Lanskap 1](#_Toc57796868)

[Jadual 2.1 The Temperature Infomation 1](#_Toc57796869)

[Jadual 2.2 The Environmental Dataset Infomation 1](#_Toc57796870)

[Jadual 2.3 Summary of the Meteorological Parameters 1](#_Toc57796871)

[Jadual 2.4 Title for Third Table in Chapter 2 1](#_Toc57796872)

[Jadual 2.5 The Statistical Information of APM Dataset 1](#_Toc57796873)

[Jadual 2.6 The Sample of the Table with More Than One Page Items 1](#_Toc57796874)

[Jadual 3.1 Data QSAR menetapkan Sumber dalam Tesis ini untuk Regresi dan Klasifikasi 1](#_Toc57796875)

[Jadual 3.2 Data QSAR menetapkan Sumber dalam Tesis ini untuk Regresi dan Klasifikasi dan Rujukan Yang Berkaitan 1](#_Toc57796876)

[Jadual 3.3 Untuk menjadikan dokumen anda kelihatan dihasilkan secara profesional, Word menyediakan tajuk, footer, muka depan, dan reka bentuk kotak teks yang saling melengkapi. 1](#_Toc57796877)

SENARAI RAJAH

|  |  |  |
| --- | --- | --- |
| Figures | Title | Page |

[Rajah 1.1 The Spectrum of Cooking Oil **Error! Bookmark not defined.**](#_Toc57211830)

[Rajah 3.1 Compressive strength of Rice Husk Ash (RHA) concrete of Grade 30 1](#_Toc57211831)

[Rajah 3.2 Typical Steps Involved in QSAR Methodology 1](#_Toc57211832)

[Rajah 3.3 A Map Showing the Sampling Location in Islamabad, Pakistan 1](#_Toc57211833)

[Rajah 3.4 A PCA Plots for Data Processing Strategy 1](#_Toc57211834)

SENARAI SIMBOL

|  |  |
| --- | --- |
| Simbols |  |
| A | Number of PLS or PCA components in the model and the number of selected latent variable in the model |
| a | Number of the PLS or PCA component |
| b | PLS regression coefficient  |
| b | Number of blocks (b=1,2,3.....,K) |
| C | Coarse APM block |
|  | Pooled covariance matrix for the two classes |
|  | Covariance matrix for class g |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

SENARAI SINGKATAN

|  |  |
| --- | --- |
| Singkatan | Kenyataan |
| PCA | Principal Component Analysis |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

JADUAL TRANSLITERASI

|  |  |
| --- | --- |
| Simbol |  |
| A | Amplitude Ratio, (No Units) |
| C | Centroid of pipe, inches |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

# PENGENALAN

## Latar Belakang Penyelidikan

Pada tab Sisipkan, galeri merangkumi item yang dirancang untuk berkoordinasi dengan keseluruhan dokumen anda. Anda boleh menggunakan galeri ini untuk memasukkan meja, tajuk, footer, senarai, halaman sampul, dan blok bangunan dokumen lain. Apabila anda membuat gambar, carta, atau gambar rajah, gambar tersebut juga diselaraskan dengan rupa dokumen semasa anda. Anda boleh menukar format yang dipilih dengan mudah.

Kedua-dua galeri Tema dan galeri Gaya Pantas memberikan perintah tetapan semula supaya anda sentiasa dapat mengembalikan rupa dokumen anda ke yang asli yang terdapat dalam templat semasa anda.

## Motivasi

Tema dan gaya juga membantu memastikan dokumen anda diselaraskan. Apabila anda mengklik Reka Bentuk dan memilih Tema baru, gambar, carta, dan grafik SmartArt berubah agar sesuai dengan tema baru anda. Apabila anda menerapkan gaya, tajuk anda berubah agar sesuai dengan tema baru. Tema dan gaya juga membantu memastikan dokumen anda diselaraskan. Apabila anda mengklik Reka Bentuk dan memilih Tema baru, gambar, carta, dan grafik SmartArt berubah agar sesuai dengan tema baru anda. Apabila anda menerapkan gaya, tajuk anda berubah agar sesuai dengan tema baru.

## Penyataan Masalah

Video memberikan kaedah yang kuat untuk membantu anda membuktikan maksud anda. Apabila anda mengklik Video Dalam Talian, anda boleh menampal kod embed untuk video yang ingin anda tambahkan. Anda juga boleh menaip kata kunci untuk mencari video dalam talian yang paling sesuai dengan dokumen anda seperti yang ditunjukkan dalam Jadual 1.1

Untuk menjadikan dokumen anda kelihatan dihasilkan secara profesional, Word menyediakan tajuk, footer, muka depan, dan reka bentuk kotak teks yang saling melengkapi. Sebagai contoh, anda boleh menambahkan halaman penutup, tajuk, dan bar sisi yang sepadan. Klik Masukkan dan kemudian pilih elemen yang anda mahukan dari galeri yang berbeza.

Pada tab Sisipkan, galeri merangkumi item yang dirancang untuk berkoordinasi dengan keseluruhan dokumen anda. Anda boleh menggunakan galeri ini untuk memasukkan meja, tajuk, footer, senarai, halaman sampul, dan blok bangunan dokumen lain. Apabila anda membuat gambar, carta, atau gambar rajah, mereka juga berkoordinasi dengan rupa dokumen semasa anda. Anda boleh mengubah format yang dipilih dengan mudah

Pada tab Sisipkan, galeri merangkumi item yang dirancang untuk berkoordinasi dengan keseluruhan dokumen anda. Anda boleh menggunakan galeri ini untuk memasukkan jadual, tajuk, footer, senarai, muka depan,

Untuk menjadikan dokumen anda kelihatan dihasilkan secara profesional, Word menyediakan tajuk, footer, muka depan, dan reka bentuk kotak teks yang saling melengkapi. Sebagai contoh, anda boleh menambahkan halaman penutup, tajuk, dan bar sisi yang sepadan. Klik Masukkan dan kemudian pilih elemen yang anda mahukan dari galeri yang berbeza seperti yang ditunjukkan dalam Jadual 1.1.

Jadual 1.1
Maklumat Statistik Set Data APM

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Kumpulan  | No sampel  | Purata sebulan  | Peratusan LoD (Coarse APM) |  Peratusan LoD (Fine APM) |
| 1  | 100  | 8 sampel |  1.70%  | 6.48% |
| 2 |  102  | 9 sampel  | 9.29%  | 9.09% |
| 3  | 176  | 9 sampel  | 2.65%  | 4.34% |
| Sumber: Laporan Bank Dunia 2016 |  |  |

Untuk menjadikan dokumen anda kelihatan dihasilkan secara profesional, Word menyediakan tajuk, footer, muka depan, dan reka bentuk kotak teks yang saling melengkapi. Sebagai contoh, anda boleh menambahkan halaman penutup, tajuk, dan bar sisi yang sepadan. Klik Masukkan dan kemudian pilih elemen yang anda mahukan dari galeri yang berbeza seperti yang ditunjukkan dalam Jadual 1.2.

Jadual 1.2
Tajuk untuk Jadual Ini Di Sini

|  |  |  |
| --- | --- | --- |
| Bahan Kimia C | Kawasan Permukaan Komposisi (m2g-1)  | Keliangan(cm3g-1) |
| Tanah gambut | 0.89- 0.99 | 0.70 |
| Tanah liat | 0.68 - 0.69  | 0.80 |
| Catatan: Pengaruh sifat kimia fizikal bentonit aktif asid dalam pemutihan minyak zaitun. |

Tema dan gaya juga membantu memastikan dokumen anda diselaraskan. Apabila anda mengklik Reka Bentuk dan memilih Tema baru, gambar, carta, dan grafik SmartArt berubah agar sesuai dengan tema baru anda. Apabila anda menerapkan gaya, tajuk anda berubah agar sesuai dengan tema baru seperti yang ditunjukkan dalam (1.3). Persamaan (1.4) memberikan contoh penggunaan kata "Persamaan" di hadapan penomboran persamaan setiap kali ayat dimulakan dengan persamaan.

Pada tab Sisipkan, galeri merangkumi item yang dirancang untuk berkoordinasi dengan keseluruhan dokumen anda. Anda boleh menggunakan galeri ini untuk memasukkan meja, tajuk, footer, senarai, halaman sampul, dan blok bangunan dokumen lain. Apabila anda membuat gambar, carta, atau gambar rajah, gambar tersebut juga diselaraskan dengan rupa dokumen semasa anda. Anda dapat dengan mudah mengubah format teks yang dipilih dalam teks dokumen dengan memilih mencari teks yang dipilih dari galeri Gaya Pantas pada tab Laman Utama. Anda juga boleh memformat teks secara langsung dengan menggunakan kawalan lain pada tab Laman Utama.

|  |  |
| --- | --- |
|  | (1.1) |

|  |  |
| --- | --- |
|  | (1.2) |

|  |  |
| --- | --- |
|  | (1.3) |

|  |  |
| --- | --- |
|  | (1.4) |

Pada tab Sisipkan, galeri merangkumi item yang dirancang untuk berkoordinasi dengan keseluruhan dokumen anda. Anda boleh menggunakan galeri ini untuk memasukkan meja, tajuk, footer, senarai, halaman sampul, dan blok bangunan dokumen lain. Apabila anda membuat gambar, carta, atau gambar rajah, gambar tersebut juga diselaraskan dengan rupa dokumen semasa anda. Anda dapat dengan mudah mengubah format teks yang dipilih dalam teks dokumen dengan memilih mencari teks yang dipilih dari galeri Gaya Pantas pada tab Laman Utama. Anda juga boleh memformat teks secara langsung dengan menggunakan kawalan lain pada tab Laman Utama.

## Objektif

Untuk menjadikan dokumen anda kelihatan dihasilkan secara profesional, Word menyediakan tajuk, footer, muka depan, dan reka bentuk kotak teks yang saling melengkapi. Sebagai contoh, anda boleh menambahkan halaman penutup, tajuk, dan bar sisi yang sepadan. Klik Masukkan dan kemudian pilih elemen yang anda mahukan dari galeri yang berbeza.

Untuk melakukan analisis pra-pemprosesan dan penerokaan data dengan menggunakan PCA, SOM dan Indeks Pemisahan Kelas.

Untuk analisis analisis Kaedah multiblock dan analisis regresi set data persekitaran.

Untuk mencari trend menggunakan pengecaman corak dalam kaedah QSAR dengan penggunaan SOM dan PLSDA.

Untuk menguji kesahan model menggunakan kaedah Pemisahan data untuk Regresi dan Klasifikasi

## Kepentingan Kajian

Anda dapat dengan mudah mengubah format teks yang dipilih dalam teks dokumen dengan memilih tampilan teks yang dipilih dari galeri Gaya Pantas pada tab Laman Utama. Anda juga dapat memformat teks secara langsung dengan menggunakan kawalan lain pada tab Laman Utama. Sebilangan besar kawalan menawarkan pilihan menggunakan tampilan dari tema semasa atau menggunakan format yang anda tentukan secara langsung. Sampel plat yang ditunjukkan dalam Plat 1.2



Rajah 1.1 Logo Pemformatan MZJ



Rajah 1.2 Gambar Cahaya

Video memberikan kaedah yang kuat untuk membantu anda membuktikan maksud anda. Apabila anda mengklik Video Dalam Talian, anda boleh menampal kod embed untuk video yang ingin anda tambahkan. Anda juga boleh menaip kata kunci untuk mencari video dalam talian yang paling sesuai dengan dokumen anda.

Untuk menjadikan dokumen anda kelihatan dihasilkan secara profesional, Word menyediakan tajuk, footer, muka depan, dan reka bentuk kotak teks yang saling melengkapi. Sebagai contoh, anda boleh menambahkan halaman penutup, tajuk, dan bar sisi yang sepadan. Klik Masukkan dan kemudian pilih elemen yang anda mahukan dari galeri yang berbeza.

Tema dan gaya juga membantu memastikan dokumen anda diselaraskan. Apabila anda mengklik Reka Bentuk dan memilih Tema baru, gambar, carta, dan grafik SmartArt berubah agar sesuai dengan tema baru anda. Apabila anda menerapkan gaya, tajuk anda berubah agar sesuai dengan tema baru.

Jimat masa di Word dengan butang baru yang muncul di mana anda memerlukannya. Untuk mengubah cara gambar sesuai dengan dokumen anda, klik dan butang untuk pilihan susun atur muncul di sebelahnya. Semasa anda bekerja di atas meja, klik di mana anda ingin menambahkan baris atau lajur, dan kemudian klik tanda tambah.

Membaca juga lebih mudah dalam pandangan Membaca yang baru. Anda boleh meruntuhkan bahagian dokumen dan fokus pada teks yang anda mahukan. Sekiranya anda perlu berhenti membaca sebelum sampai ke akhir, Word ingat di mana anda berhenti - walaupun pada peranti lain.

## Contoh Jadual

Jadual 1.3
Contoh Jadual dengan Lebih Daripada Satu Item Halaman Portrait

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nombpr | Penerangan Kumpulan | Singkatan Deskriptor | Molekul | Jumlah | Penerangan |
|  | Penerangan perlembagaan | Con  | 0D  | 48 | Deskriptor daripada penyambungan dan pematuhan molekul. Kiraan atom dan ikatan, berat molekul, jumlah sifat atom, dll |
|  | Penerangan topologi  | Topo | 2D  | 119  | Deskriptor molekul yang diperoleh daripada graf molekul (biasanya H-depleted), iaitu 2D-deskriptor secara konformasi bebas. |
|  | Penerangan perlembagaan | Con  | 0D  | 48 | Deskriptor daripada penyambungan dan pematuhan molekul. Kiraan atom dan ikatan, berat molekul, jumlah sifat atom, dll |
|  | Penerangan topologi  | Topo | 2D  | 119  | Deskriptor molekul yang diperoleh daripada graf molekul (biasanya H-depleted), iaitu 2D-deskriptor secara konformasi bebas. |
|  | Penerangan perlembagaan | Con  | 0D  | 48 | Deskriptor daripada penyambungan dan pematuhan molekul. Kiraan atom dan ikatan, berat molekul, jumlah sifat atom, dll |
|  | Penerangan topologi  | Topo | 2D  | 119  | Deskriptor molekul yang diperoleh daripada graf molekul (biasanya H-depleted), iaitu 2D-deskriptor secara konformasi bebas. |

Jadual 1.4
Contoh Jadual dengan Lebih Daripada Satu Item Halaman Lanskap

| Nombpr | Penerangan Kumpulan | Singkatan Deskriptor | Molekul | Jumlah | Penerangan |
| --- | --- | --- | --- | --- | --- |
|  | Penerangan perlembagaan | Con  | 0D  | 48 | Deskriptor daripada penyambungan dan pematuhan molekul. Kiraan atom dan ikatan, berat molekul, jumlah sifat atom, dll |
|  | Penerangan topologi  | Topo | 2D  | 119  | Deskriptor molekul yang diperoleh daripada graf molekul (biasanya H-depleted), iaitu 2D-deskriptor secara konformasi bebas. |
|  | Penerangan topologi  | Topo | 2D  | 119  | Deskriptor molekul yang diperoleh daripada graf molekul (biasanya H-depleted), iaitu 2D-deskriptor secara konformasi bebas. |
|  | Penerangan perlembagaan | Con  | 0D  | 48 | Deskriptor daripada penyambungan dan pematuhan molekul. Kiraan atom dan ikatan, berat molekul, jumlah sifat atom, dll |
|  | Penerangan topologi  | Topo | 2D  | 119  | Deskriptor molekul yang diperoleh daripada graf molekul (biasanya H-depleted), iaitu 2D-deskriptor secara konformasi bebas. |
|  | Penerangan perlembagaan | Con  | 0D  | 48 | Deskriptor daripada penyambungan dan pematuhan molekul. Kiraan atom dan ikatan, berat molekul, jumlah sifat atom, dll |
|  | Penerangan topologi  | Topo | 2D  | 119  | Deskriptor molekul yang diperoleh daripada graf molekul (biasanya H-depleted), iaitu 2D-deskriptor secara konformasi bebas. |
|  | Penerangan topologi  | Topo | 2D  | 119  | Deskriptor molekul yang diperoleh daripada graf molekul (biasanya H-depleted), iaitu 2D-deskriptor secara konformasi bebas. |
|  | Penerangan perlembagaan | Con  | 0D  | 48 | Deskriptor daripada penyambungan dan pematuhan molekul. Kiraan atom dan ikatan, berat molekul, jumlah sifat atom, dll |
|  | Penerangan topologi  | Topo | 2D  | 119  | Deskriptor molekul yang diperoleh daripada graf molekul (biasanya H-depleted), iaitu 2D-deskriptor secara konformasi bebas. |
|  | Penerangan perlembagaan | Con  | 0D  | 48 | Deskriptor daripada penyambungan dan pematuhan molekul. Kiraan atom dan ikatan, berat molekul, jumlah sifat atom, dll |
|  | Penerangan topologi  | Topo | 2D  | 119  | Deskriptor molekul yang diperoleh daripada graf molekul (biasanya H-depleted), iaitu 2D-deskriptor secara konformasi bebas. |
|  | Penerangan topologi  | Topo | 2D  | 119  | Deskriptor molekul yang diperoleh daripada graf molekul (biasanya H-depleted), iaitu 2D-deskriptor secara konformasi bebas. |
|  | Penerangan perlembagaan | Con  | 0D  | 48 | Deskriptor daripada penyambungan dan pematuhan molekul. Kiraan atom dan ikatan, berat molekul, jumlah sifat atom, dll |
|  | Penerangan topologi  | Topo | 2D  | 119  | Deskriptor molekul yang diperoleh daripada graf molekul (biasanya H-depleted), iaitu 2D-deskriptor secara konformasi bebas. |
|  | Penerangan perlembagaan | Con  | 0D  | 48 | Deskriptor daripada penyambungan dan pematuhan molekul. Kiraan atom dan ikatan, berat molekul, jumlah sifat atom, dll |
|  | Penerangan topologi  | Topo | 2D  | 119  | Deskriptor molekul yang diperoleh daripada graf molekul (biasanya H-depleted), iaitu 2D-deskriptor secara konformasi bebas. |
|  | Penerangan perlembagaan | Con  | 0D  | 48 | Deskriptor daripada penyambungan dan pematuhan molekul. Kiraan atom dan ikatan, berat molekul, jumlah sifat atom, dll |
|  | Penerangan topologi  | Topo | 2D  | 119  | Deskriptor molekul yang diperoleh daripada graf molekul (biasanya H-depleted), iaitu 2D-deskriptor secara konformasi bebas. |
|  | Penerangan perlembagaan | Con  | 0D  | 48 | Deskriptor daripada penyambungan dan pematuhan molekul. Kiraan atom dan ikatan, berat molekul, jumlah sifat atom, dll |
|  | Penerangan topologi  | Topo | 2D  | 119  | Deskriptor molekul yang diperoleh daripada graf molekul (biasanya H-depleted), iaitu 2D-deskriptor secara konformasi bebas. |

# SOROTAN LITERATUR

## Introduction

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly. As shown in Jadual 2.1 and Jadual 2.2

Jadual 2.1
The Temperature Infomation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable | Minimum | Maximum | Average | Standard deviation |
| Minimum temperature over 24 hours preceding 0300 GMT (0C) | 0.0 | 30.0 | 15.33 | 7.06 |
| Maximum temperature over 24 hours preceding 1200 GMT (0C) | 12.5 | 44.7 | 29.85 | 6.93 |

Jadual 2.2
The Environmental Dataset Infomation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable | Minimum | Maximum | Average | Standard deviation |
| Average relative humidity (%) | 31.0 | 97.0 | 63.70 | 14.80 |
| Average pressure (hPa) | 994.37 | 1022.43 | 1009.04 | 6.48 |
| Average wind speed (Knot) | 0.0 | 9.0 | 0.79 | 1.43 |
| Average rainfall (mm) | 0.0 | 140.0 | 3.82 | 14.05 |

#### Data Pre-Processing and Data Drift: The Utility of Principal Component Analysis, Self-Organizing Maps and Class Separation Indices

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look. The sample of equation is given in (2.1). On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look as shown in (2.2).

|  |  |
| --- | --- |
|  | (2.1) |

|  |  |
| --- | --- |
|  | (2.2) |

#### Multivariate Linear Regression

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.

To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.

## Environmental Studies

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.

To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.

Jadual 2.3
Summary of the Meteorological Parameters

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable | Minimum | Maximum | Average | Standard deviation |
| Minimum temperature over 24 hours preceding 0300 GMT (0C) | 0.0 | 30.0 | 15.33 | 7.06 |
| Maximum temperature over 24 hours preceding 1200 GMT (0C) | 12.5 | 44.7 | 29.85 | 6.93 |
| Average relative humidity (%) | 31.0 | 97.0 | 63.70 | 14.80 |
| Average pressure (hPa) | 994.37 | 1022.43 | 1009.04 | 6.48 |
| Average wind speed (Knot) | 0.0 | 9.0 | 0.79 | 1.43 |
| Average rainfall (mm) | 0.0 | 140.0 | 3.82 | 14.05 |

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look. You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab.

#### Airborne Particulate Matter Datasets

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.

To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.

Jadual 2.4
Title for Third Table in Chapter 2

|  |  |  |
| --- | --- | --- |
| Title | Title | Title  |
| To change the overall look of your document | To change the overall look of your document | To change the overall look of your document |
| To change the overall look of your document | To change the overall look of your document | To change the overall look of your document |
| Source: World Bank report 2016 |

Jadual 2.5
The Statistical Information of APM Dataset

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Batch | No of samples | Average per month | Percentage of LoD (Coarse APM) | Percentage of LoD (Fine APM) |
| 1 | 100 | 8 samples | 1.70% | 6.48% |
| 2 | 102 | 9 samples | 9.29% | 9.09% |
| 3 | 176 | 9 samples | 2.65% | 4.34% |

#### Meteorological Dataset

##### Data Pre-Processing and Data Drift

###### You Can Use These Galleries To Insert Tables, Headers, Footers, Lists, Cover Pages, And Other Document Building Blocks. When You Create Pictures, Charts, Or Diagrams, They Also Coordinate With Your Current Document Look.

###### You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.

To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.

To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.

## Quantitative Structure Activity Relationships Studies on the Active and Inactive Antimalarial Compounds

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.



Plate 2.1 A Sample of Grass and Bamboo 2

To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.

Jadual 2.6
The Sample of the Table with More Than One Page Items

| No | Molecular Descriptors | Abbreviation | Groups | Amount | Description |
| --- | --- | --- | --- | --- | --- |
| 1 | Constitutional descriptors | Con | 0D | 48 | 0D-descriptors, independent from molecular connectivity and conformations. Atom and bonds counts, molecular weight, sum of atomic properties, etc |
| 2 | Topological descriptors | Topo | 2D | 119 | Molecular descriptors obtained from the molecular graph (usually H-depleted), i.e 2D-descriptors conformationally independent. |
| 3 | Walk and pathcounts | Wap | 2D | 47 | Molecular descriptors obtained from the molecular graph, counting paths, walk and self returning walks of different lengths. |
| 4 | Connectivityindices | Coni | 2D | 33 | Topological Molecular descriptors calculated from the vertex degree of the atoms in the H-depleted molecular graph. |
| 5 | Informationindices | Info | 2D | 47 | Molecular descriptors calculated as information content of molecules, based on the calculation of equivalences classes from the molecular graph. Among them, the indices of neighbourhood degree and edge multiplicity. |
| 6 | 2Dautocorrelations | 2D | 2D | 96 | Molecular descriptors calculated from the molecular graph by summing the products of atom weights of the terminal atoms of all the paths of the considered path length (the lag) |
| 7 | Edge adjacency indices | Edge | 2D | 107 | Topological Molecular descriptors derived from the edge adjacency matrix which encodes the connectivity between graph edges. |
| 8 | Burdeneigenvalues | Bur | 2D | 64 | Molecular descriptors contained from the positive and negative eigenvalues of the adjacency matrix, weighting the diagonal element with atom weight. |
| 9 | Topologicalcharge indices | Topoc | 2D | 21 | First 10 eigenvalues (absolute values) obtained from a corrected adjacency matrix. |
| 10 | Eigenvalue-based indices | EiG | 2D | 44 | Topological descriptors calculated by the eigenvalues of the square(usually symmetric) matrix representing a molecular graph. |
| 11 | Randic molecular profiles | Ran | 3D | 41 | Molecular descriptors derived from the distance distribution moments of the geometry matrix, defined as the average row sum of its entries raised at the k-th power, normalized by the factor k. |
| 12 | Geometrical descriptors | Geo | 3D | 74 | Different kinds of conformationally dependent descriptors based on the molecular geometry. Reliable values are obtained if reliable conformations were previously calculated. |
| 13 | RDF descriptors | RDF | 3D | 150 | Molecular descriptors obtained by radial basis functions centred on different interatomic distances (from 0.5A to 15.5A) |
| 14 | 3D-MoRSE descriptors | 3D | 3D | 160 | Molecular descriptors calculated by summing atom weights by different angular scattering function. |
| 15 | WHIMdescriptors | WHIM | 3D | 99 | Molecular descriptors obtained as statistical indices of the atom projected onto the 3 principal components obtained from weighted covariance matrices of the atomic coordinates. |
| 16 | GETAWAY descriptors | GATE | 3D | 197 | Descriptors calculated from the leverage matrix obtained by the centred atoic coordinates (molecular influences matrix,MIM). The first four descriptors are calculated as information content and connectivity indices. HATA and H descriptors are 3D-autocorrelation descriptors obtained from MIM; R and R+ descriptors obtained from the leverage. Geometry matrix. |
| 17 | Functional group counts | Funct | Others | 152 | Molecular descriptors based on the counting of chemical functional groups. They are calculated by knowing the molecular composition and atom connectivities. |
| 18 | Atom-centred fragments | Atom | Others | 120 | Molecular descriptors, based on the counting of 120 atom-centered fragments, as defined by Ghose-Crippen. Some fragments are undefined by the authors. They are calculated by knowing the molecular composition and atom connectivities. |
| 19 | Charged descriptors | charged | Others | 14 | Fourteen charge descriptors which are reliable only when charge are estimated by quantum molecular methods |

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.

To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.



Plate 2.2 A Sample of Formatting Method



Plate 2.3 The View of the Tuanku Syed Sirajuddin Building, UiTM from the Dataran Tengku Fauziah

# KAEDAH PENYELIDIKAN

## Introduction

(Normal UiTM Paragraph 1a) On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

## Data Pre-Processing for Classifcation

(Normal UiTM Paragraph 1)On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert table. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

(Normal UiTM Paragraph 2b) To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look. You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab.



Rajah 3.1 Compressive strength of Rice Husk Ash (RHA) concrete of Grade 30

#### Individual Transformation

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look The sample for writing an equation are shown at (3.1and (3.2);

|  |  |
| --- | --- |
|  | (3.1) |

|  |  |
| --- | --- |
|  | (3.2) |

To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template. On The Insert Tab, The Galleries Include Items That Are Designed To Coordinate With The Overall Look Of Your Document.

Save time in Word with new buttons that show up where you need them. To change the way a picture fits in your document, click it and a button for layout options appears next to it. When you work on a table, click where you want to add a row or a column, and then click the plus sign.

Reading is easier, too, in the new Reading view. You can collapse parts of the document and focus on the text you want. If you need to stop reading before you reach the end, Word remembers where you left off - even on another device.

#### Row Scaling

To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.nYou Can Use These Galleries To Insert Tables, Headers, Footers, Lists, Cover Pages, And Other Document Building Blocks.

When you create pictures, charts, or diagrams, they also coordinate with your current document look. You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab.

You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.

#### Column Scaling

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

“You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.”

To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.

To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.

To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template. On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document.

## Exploratory Data Analysis Principal Component Analysis

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.

To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.

Rajah 3.2 Typical Steps Involved in QSAR Methodology



Nilore

Rajah 3.3 A Map Showing the Sampling Location in Islamabad, Pakistan

To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.

## Quantitative Structure Activity Relationships Studies on The Active and Inactive Antibacterial Compounds

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.To change the overall look of your document, choose new Theme elements on the Page Layout tab. the look of your document to the original contained in your current template.

|  |  |  |
| --- | --- | --- |
|  |  |  |
| 1. Pre-process data: A1, R1 and C1
 | 1. Pre-process data: A1, R1 and C2
 | 1. Pre-process data: A1, R1, C3
 |
|  |  |  |
| 1. Pre-process data: A1, R2 and C1
 | 1. Pre-process data: A1, R2 and C2
 | 1. Pre-process data: A1, R2, C3
 |

Rajah 3.4 A PCA Plots for Data Processing Strategy

Jadual 3.1
Data QSAR menetapkan Sumber dalam Tesis ini untuk Regresi dan Klasifikasi

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Name | Dimension | Classes/ Types | Reference |
| 1 | Blood Brain Barrier | 406 × 926 | Non-penetrating (class 1), 136 compoundsPenetrating (class 2), 270 compounds | (Li et al., 2005) |
| 2 | Antimalarial | 57 × 1661 | Regression  |
| 3 | Skin | 131 × 926 | Strong skin sensitizers (Class 1), 67 compoundsNon- strong skin sensitizers(class 2), 64 compounds | (Ren et al., 2006) |

Jadual 3.2
Data QSAR menetapkan Sumber dalam Tesis ini untuk Regresi dan Klasifikasi dan Rujukan Yang Berkaitan

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Name | Dimension | Classes/ Types | Reference |
| 1 | Blood Brain Barrier | 406 × 926 | Non-penetrating (class 1), 136 compoundsPenetrating (class 2), 270 compounds | (Li et al., 2005) |
| 2 | Antimalarial | 57 × 1661 | Regression  |
| 3 | Skin | 131 × 926 | Strong skin sensitizers (Class 1), 67 compoundsNon- strong skin sensitizers(class 2), 64 compounds | (Ren et al., 2006) |

Jadual 3.3
Untuk menjadikan dokumen anda kelihatan dihasilkan secara profesional, Word menyediakan tajuk, footer, muka depan, dan reka bentuk kotak teks yang saling melengkapi.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Name | Dimension | Classes/ Types | Reference |
| 1 | Blood Brain Barrier | 406 × 926 | Non-penetrating (class 1), 136 compoundsPenetrating (class 2), 270 compounds | (Li et al., 2005) |
| 2 | Antimalarial | 57 × 1661 | Regression  |
| 3 | Skin | 131 × 926 | Strong skin sensitizers (Class 1), 67 compoundsNon- strong skin sensitizers(class 2), 64 compounds | (Ren et al., 2006) |

# DAPATAN DAN PERBINCANGAN BERKENAAN KAJIAN LAPANGAN DAN KAJIAN AWALAN DI MENARA GADING

2cm

## Introduction

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document. You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks. When you create pictures, charts, or diagrams, they also coordinate with your current document look.(Abbas et al., 2011)

On the Insert tab, the galleries include items that are designed to coordinate with the overall look of your document.

You can use these galleries to insert tables, headers, footers, lists, cover pages, and other document building blocks.

When you create pictures, charts, or diagrams, they also coordinate with your current document look.

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab.

You can also format text directly by using the other controls on the Home tab.

## Chemometrics

You can easily change the formatting of selected text in the document text by choosing a look for the selected text from the Quick Styles gallery on the Home tab. You can also format text directly by using the other controls on the Home tab. Most controls offer a choice of using the look from the current theme or using a format that you specify directly.(2010a; 2010b; 2013)

## PCA and PLS

To change the overall look of your document, choose new Theme elements on the Page Layout tab. To change the looks available in the Quick Style gallery, use the Change Current Quick Style Set command. Both the Themes gallery and the Quick Styles gallery provide reset commands so that you can always restore the look of your document to the original contained in your current template.(Mohd Zuli Jaafar et al., 2006; Mohd Z Jaafar et al., 2011; Lazim et al., 2013; Sim et al., 2015)

RUJUKAN

Katritzky, A. R., Kulshyn, O. V., Stoyanova-Slavova, I., Dobchev, D. A., Kuanar, M., Fara, D. C., & Karelson, M. (2006). Antimalarial activity: A QSAR modeling using CODESSA PRO software. *Bioorganic & Medicinal Chemistry, 14*(7), 2333-2357.

Li, H., Yap, C. W., Ung, C. Y., Xue, Y., Cao, Z. W., & Chen, Y. Z. (2005). Effect of Selection of Molecular Descriptors on the Prediction of Blood-Brain Barrier Penetrating and Nonpenetrating Agents by Statistical Learning Methods. *J. Chem. Inf. Model., 45*(5), 1376-1384.

Ren, Y., Liu, H., Xue, C., Yao, X., Liu, M., & Fan, B. (2006). Classification study of skin sensitizers based on support vector machine and linear discriminant analysis. *Analytica Chimica Acta, 572*(2), 272-282.

APENDIK

APPENDIX 1

Example of the Codes in PLS Algorithms

APPENDIX 2

Table of Parameters Used in Data Processing for PLS Testing Precuders on the Classification of Biological Activity

|  |  |  |
| --- | --- | --- |
| Type | Formula | Description |
| C1 |  | Mean centring |
| C2 |  | Standardisation |
| C3 |  | Range scaling  |

PROFIL PENULIS

|  |  |  |
| --- | --- | --- |
|  | C:\Users\MohdZuliDell\Dropbox (MZJ Word for Thesis)\Zuli PHOTO.png |  |

Mohd Zuli Jaafar obtained Bachelor of Science in Chemistry (Hons.) in 1996 from University Malaya, Kuala Lumpur, MSc in Chemistry (2002) from Universiti Teknologi Malaysia and PhD in Chemometrics (2011) from the University of Bristol, United Kingdom. His PhD thesis involves several methods in Chemometrics and Pattern Recognition includes Data Preprocessing, Regression, Classification and Variable Selection. Currently he is working on several scientific dataset i.e. Fourier Transform Infrared Spectroscopy, Near Infrared, Particle-Induced X-Ray Emission and Quantitative Structure-Activity Relationship.

List of Publication:

Sim, S.F., T.Y. Ling, S. Lau, and M.Z. Jaafar, A novel computer-aided multivariate water quality index. Environ Monit Assess, 2015. 187(4): p. 181.

Yatim, N.N.M., Z.M. Zain, M.Z. Jaafar, Z. Md Yusof, A.R. Laili, M.H. Laili, and M.H. Hisham. Noninvasive glucose level determination using diffuse reflectance near infrared spectroscopy and chemometrics analysis based on in vitro sample and human skin. in Systems, Process and Control (ICSPC), 2014 IEEE Conference on. 2014.

Rasaruddin, N.F., M.E.N.M. Ruah, M.N. Hasan, and M.Z. Jaafar, Determination of Iodine Value of Palm Oils Using Partial Least Squares Regression-Fourier Transform Infrared Data. Jurnal Teknologi, 2014. 70(5).

Rasaruddin, N.F., M.N. Hasan, M.E.N.M. Ruah, S.S. Fong, and M.Z. Jaafar. Signal processing strategies in FT-NIR and FTIR spectra of palm oils. in Signal Processing & its Applications (CSPA), 2014 IEEE 10th International Colloquium on Signal Processing and its Application 2014. IEEE.

Waheed, S., M.Z. Jaafar, N. Siddique, A. Markwitz, and R.G. Brereton, PIXE analysis of PM2. 5 and PM2. 5–10 for air quality assessment of Islamabad, Pakistan: Application of chemometrics for source identification. Journal of Environmental Science and Health, Part A, 2012. 47(13): p. 2016-2027.

Ridzuan, M.S.M., M.Z. Jaafar, and M.M. Zain. Quantitative structure-activity relationship (QSAR) modelling of N-aryl derivatives as cholinesterase inhibitors. in Humanities, Science and Engineering Research (SHUSER), 2012 IEEE Symposium on. 2012. IEEE.

Jaafar, M.Z., A.H. Khan, S. Adnan, A. Markwitz, N. Siddique, S. Waheed, and R.G. Brereton, Multiblock analysis of environmental measurements: A case study of using Proton Induced X-ray Emission and meteorology dataset obtained from Islamabad Pakistan. Chemometrics and Intelligent Laboratory Systems, 2011. 107(1): p. 31-43.

Saim, N., R. Osman, D.R.S.A. Spian, M.Z. Jaafar, H. Juahir, M.P. Abdullah, and F. Ab Ghani, Chemometric approach to validating faecal sterols as source tracer for faecal contamination in water. Water research, 2009. 43(20): p. 5023-5030.

Jaafar, M.Z., S.A.I.S.M. Ghazali, and M. Musa, Basic Chemistry 1 Objective Questions for Pre Sciences Students. 2008: Pusat Penerbitan Universiti, Universiti Teknologi MARA.

Brereton, R.G., G. Lloyd, S. Fong, K. Wongravee, and M. Jaafar. Application of Modern Supervised Pattern Recognition Methods in Chemometrics. in Multivariate Analysis and Chemometry Applied to Environment and Cultural Heritage. 2008.