A picture containing text

Description automatically generated

**CZ2003 COMPUTER GRAPHICS & VISUALIZATION**

**EXPERIMENT 5: MORPHING**

**LAB REPORT**

Shearman Chua Wei Jie (U1820058D)

LAB GROUP: SS2

**3D Linear Morphing**

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| **A picture containing drawing  Description automatically generated** | |
| Above is the snapshot of the morphing process which can be found in “lab5.wrl”  The overall morphing is generated in the process as shown.  Given seat number = 22 and class SS2, the model to be produced is:  - Shape 1: 22  - Shape 2: 22 + 2 = 24 | |
| **A picture containing light  Description automatically generated** | The figure on the left is the first surface to be displayed. The shape is defined by the parametric equations:  x1=1.5\*cos(2\*pi\*u)\*sin(2\*pi\*v);  y1=1.5\*sin(2\*pi\*u)\*sin(2\*pi\*v);  z1=0.15\*(((2\*pi\*u)^2+(2\*pi\*v)^2)^0.5)\*cos(2\*pi\*v);  The resolution is set to [50 50] and parameter domain is set to [0 1 0 1], for u and v respectively. |
| **A picture containing light  Description automatically generated** | The figure on the left is the second surface to be displayed. The shape is defined by the parametric equations:  x2=2\*(cos(2\*pi\*u)^3)\*(sin(pi\*v))^3;  y2=2\*(sin(2\*pi\*u)^3)\*(sin(pi\*v))^3;  z2=2\*(cos(pi\*v))^3;  The resolution is set to [50 50] and parameter domain is set to [0 1 0 1], for u and v respectively. |
| **A close up of a logo  Description automatically generated** | The morphing process is expressed in the following equations:  x1+(x2-x1)\*t;  y1+(y2-y1)\*t;  z1+(z2-z1)\*t;  where x1,y1,z1 are obtained from Shape 1, and x2,y2,z2 are obtained from Shape 2.  Similarly, the resolution is set to [50 50] and parameter domain is set to [0 1 0 1], for u and v respectively. |