BINUS University

Academic Career: ***Undergraduate / ~~Master~~ / ~~Doctoral~~ *)***	**Class Program:** ***~~International~~ / Regular / ~~Smart Program~~ /*** ***~~Global Class~~ / ~~BINUS Online Learning~~ *)***
☐ **Mid Exam** ☐ **Compact Term Exam** ☑ **Final Exam** ☐ **Others Exam : _____**	**Term : Odd / ~~Even~~ / ~~Compact~~ *)** **Period (Only for BOL) : ~~1~~ / ~~2~~ *)**
☑ **Kemanggisan** ☐ **Senayan** ☐ **Semarang** ☑ **Alam Sutera** ☐ **Bandung** ☑ **Bekasi** ☐ **Malang**	**Academic Year :** **2022 / 2023**

Exam Type*	:	~~Onsite~~ / Online	Faculty / Dept.	:	School of Computer Science
Day / Date**	:	Sabtu / 4 Februari 2023	Code - Course	:	COMP7116001 – Computer Vision COMP7116016 – Computer Vision
Time**	:	17.00	Code - Lecturer	:	Team Teaching
Exam Specification***	:	☐ Open Book ☐ Open Notes ☐ Close Book ☐ Submit Project ☐ Open E-Book ☐ Oral Test	BULC (Only for BOL)	:	-
			Class	:	All Classes
Equipment***	:		Student ID ***	:	
☐ Exam Booklet ☐ Laptop ☐ Drawing Paper – A3 ☐ Calculator ☐ Tablet ☐ Drawing Paper – A2 ☐ Dictionary ☐ Smartphone ☐ Notes			Name ***	:	
			Signature ***	:	

*) *Strikethrough the unnecessary items* **) *For Online Exam, this is the due date* ***) *Only for Onsite Exam*

Please insert the test paper into the exam booklet and submit both papers after the test.

The penalty for CHEATING is DROP OUT!

Learning Outcomes:

LO 1 : Describe various computational principles and standard image processing operators in computer vision
LO 2 : Explain the local features with their detectors and descriptors in computer vision
LO 3 : Employ various features to find the correspondence between images and perform recognition in computer vision
LO 4 : Build various image recognition system in computer vision

I. Esai (100%)

1. Bayangkan Anda adalah seorang *freelancer* pembuat sistem berbasis *computer vision*. Pada suatu hari, seorang klien datang ke Anda untuk membuat sistem yang bisa mendeteksi apakah ada karakter berwajah merah atau tidak di gambar-gambar yang ada di folder pada tautan berikut:

   https://drive.google.com/drive/folders/1mrf4cqjQB0-OZYyu0EWlNGahTihVPaMM?usp=sharing

Verified by,

Hidayaturrahman (D6423) and sent to Program on JAN 10, 2023

a. **[LO 1, LO 2 & LO 3, 45 poin]** Jelaskan pendekatan dan algoritma-algoritma yang anda gunakan untuk memecahkan masalah yang diberikan oleh klien tersebut
b. **[LO 4, 25 poin]** Buatlah kode berdasarkan pendekatan yang anda ajukan di poin a menggunakan python notebook.

2. **[LO 1, LO 2 & LO 3, 30 poin]** Jelaskan dengan menggunakan kata-kata Anda sendiri mengenai proyek akhir (AOL) Anda serta kontribusi Anda dalam proyek tersebut.

-- Selamat Mengerjakan --

Verified by,

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