



A REPORT ON Template Protection of Biometric

> Date: 16th October, 2021 Platform: Cisco WebEx Meeting

TEMPLATE PROTECTION OF BIOMETRIC

Introduction

To bring out the best in students by giving them the experience of the top-notch technology, **Silver Oak University IEEE Student Branch** along with **IEEE Gujarat Section** came up with an enlightening event "**Template Protection of Biometric**" under the Section Technical Expert Program (**STEP**). This session briefed about biometric template protection and its various aspects.

About the Speaker

For this illustrious event we had our eminent speaker Dr. Mita Paunwala, Vice-Chair of IEEE SPS, Gujarat Chapter, Dean of Alumni Affairs, and Associate Professor in the Department of Electronics and Communication at C.K. Pithawala College of Engineering and Technology, Surat, to guide us and to explore this thriving topic of technology.

About the Session

Date: 16th October, 2021 Time: 10:00 AM to 11:30 AM IST Platform: Cisco WebEx Meeting Participants: 71

The event started with welcoming and introducing the speaker Dr. Mita Paunwala ma'am. The speaker initiated the session by briefing about the key aspects of biometric template protection. The issues occurring in the security system and how to overcome these issues by biometric system. Adding further she mentioned about the eight possible threats and two major issues of the biometric system. The speaker also explained about different approaches made for template protection along with the difference between the original test and the watermarked test image. And concluded the session by awaring the participants how important the biometric system is in our day to day use of technology with the biometric protection.

Conclusion

A Q&A session was conducted for the participants regarding template protection and biometric security systems. All the queries of participants were puzzled out by our eminent speaker. The event was concluded by presenting a virtual memento to Dr. Mita Paunwala ma'am from IEEE SOU SB for such an informative session. Lastly, we thanked all the faculty advisors, committee members, and participants for attending and making this session memorable and successful.

Some glimpse of the event

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Generic Biometric	System With Eight	Q Search MP Q Maharsh Patel Cohost, me MS Q Mruga Shah Host	8 8 ≡1 (
Possible Threats		DP O Dr. Mita Paunwala Cohost Dr. Mitet Ahir Cohost Dr. Mitet Ahir	• #
Sensor	Type of Attack Depiction Class-1 Fake biometric like silicon finger, iris texture and face	HY B Harshul Yagnik Cohost MK B Mayuresh Kulkarni	ų.
Class 2 attack	mask is presented to the sensor. Class-2 Known as replay attack in which seized biometric data is presented to the feature extractor, bypassing the sensor.	Cohost Midhun Nair Cohost	8
Class 4 attack Class 4 attack	Class-3 The feature extractor module is replaced with malware program. Class-4 Replaces the gemuine feature values by synthetic or	PM & Prachi Majmudar Cohost VS & VRUSHTI SHAH	8
	Class-i Replaces the genuine feature values by symmetric or unwanted features selected by the attacker. Class-5 The matcher is replaced with a malware or Trojan program.	1 9 190770107265	я ₆
Overvide Matcher Class 8 attack Class 8 attack	Class-6 Changes, modifies or removes templates in the database. Class-7 The templates are tampered, stolen, replaced or altered between the stored templates and matcher.	1 • 191200116051_5IT_ASOIT 2 • 200103101021	8 ₆
Cinas O muck	Class 8 The matcher result can be overridden by the back of the matcher result can be overridden by the back of the providence of the matcher result is a state of the providence of the state of	2 0 200103102096 Mute all Unmute all	<i>%</i>
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