

Biyometrik Parmak İzinin Akıllı Kartlarla Kullanımı ve Uygulaması

Ali KORKMAZ

Bilgisayar Mühendisliği Bölümü

Sakarya Üniversitesi

ali.s@sakarya.edu.tr

DANIŞMAN

Prof. Dr. Cemil ÖZ

Veli DANIŞ, Mehmet BAYRAK

Bilgisayar Mühendisliği Bölümü

Sakarya Üniversitesi

Veli_d@gmail.com, mehmet.d@hotmail.com

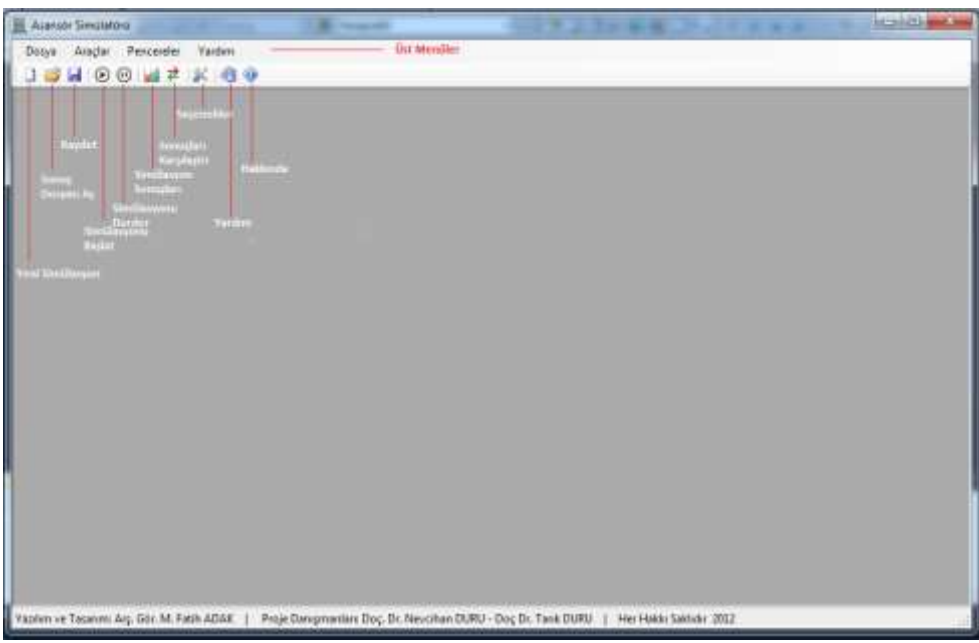
Giriş

Burada sadece örnek bir tasarım verilmiş olup. Posterlerin görsel ağırlıklı olması beklenmektedir. As a social outcast since age 10, he had little difficulty working alone. And as a mathematician with built-in gift for logic and foresight, Stallman possessed the ability to circumvent design barriers that left most hackers spinning their wheels. Perhaps the most enjoyable emotion, however, was the sense of personal fulfillment. When it came to hacking, Stallman was a natural. A childhood's worth of late-night study sessions gave him the ability to work long hours with little sleep. As a social outcast since age 10, he had little difficulty working alone. And as a mathematician with built-in gift for logic and foresight, Stallman possessed the ability to circumvent design barriers that left most hackers spinning their wheels. Perhaps the most enjoyable emotion, however, was the sense of personal fulfillment. When it came to hacking, Stallman was a natural. A childhood's worth of late-night study sessions gave him the ability to work long hours with little sleep. As a social outcast since age 10, he had little difficulty working alone. And as a mathematician with built-in gift for logic and foresight, Stallman possessed the ability to circumvent design barriers that left most hackers spinning their wheels.

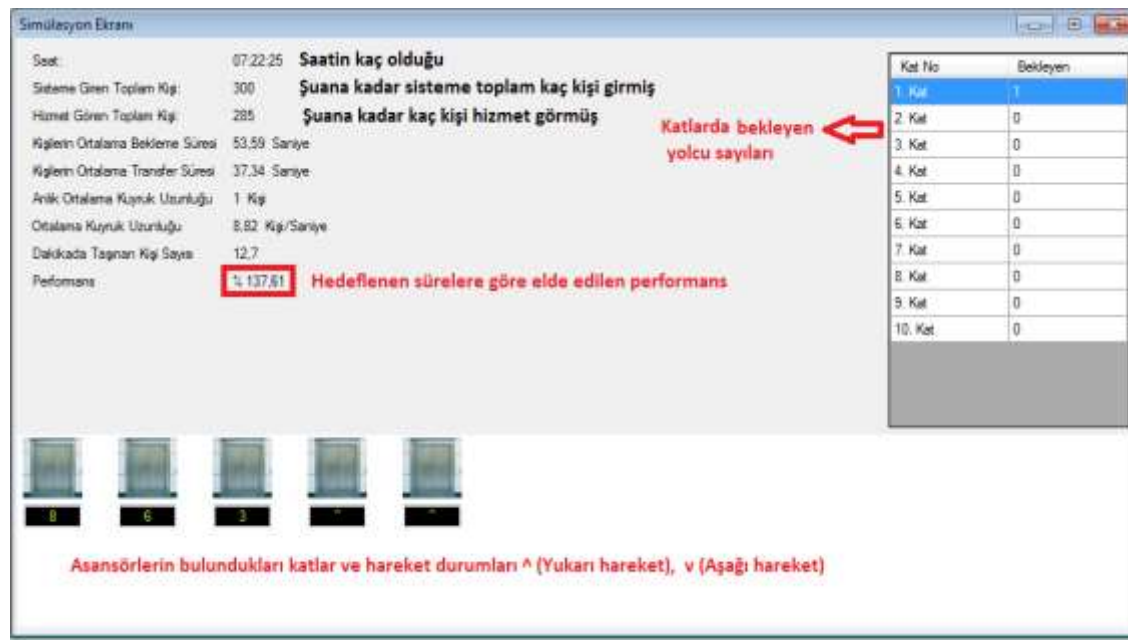
Çizelge 1: analiz sonuçları

k	Average ϕ		Minimum ϕ		Average T	
	k-means	k-means++	k-means	k-means++	k-means	k-means++
10	$1.365 \cdot 10^3$	8.47%	$1.174 \cdot 10^3$	0.93%	0.12	46.72%
25	$4.233 \cdot 10^4$	99.96%	$1.914 \cdot 10^4$	99.92%	0.00	87.79%
50	$7.750 \cdot 10^5$	99.81%	$1.474 \cdot 10^5$	0.53%	2.04	-1.62%

Geliştirilen Yazılım



Şekil 1: Simülâtörün ana ekranı.



Şekil 2: Simülasyon ekranı.

Asansör Perhaps the most enjoyable emotion, however, was the sense of personal fulfillment. When it came to hacking, Stallman was a natural. A childhood's worth of late-night study sessions gave him the ability to work long hours with little sleep. As a social outcast since age 10, he had little difficulty working alone. And as a mathematician with built-in gift for logic and foresight, Stallman possessed the ability to circumvent design barriers that left most hackers spinning their wheels. Perhaps the most enjoyable emotion, however, was the sense of personal fulfillment. When it came to hacking, Stallman was a natural.

Kullanılan Yöntem

Perhaps the most enjoyable emotion, however, was the sense of personal fulfillment. When it came to hacking, Stallman was a natural. A childhood's worth of late-night study sessions gave him the ability to work long hours with little sleep. As a social outcast since age 10, he had little difficulty working alone. And as a mathematician with built-in gift for logic and foresight, Stallman possessed the ability to circumvent design barriers that left most hackers spinning their wheels.

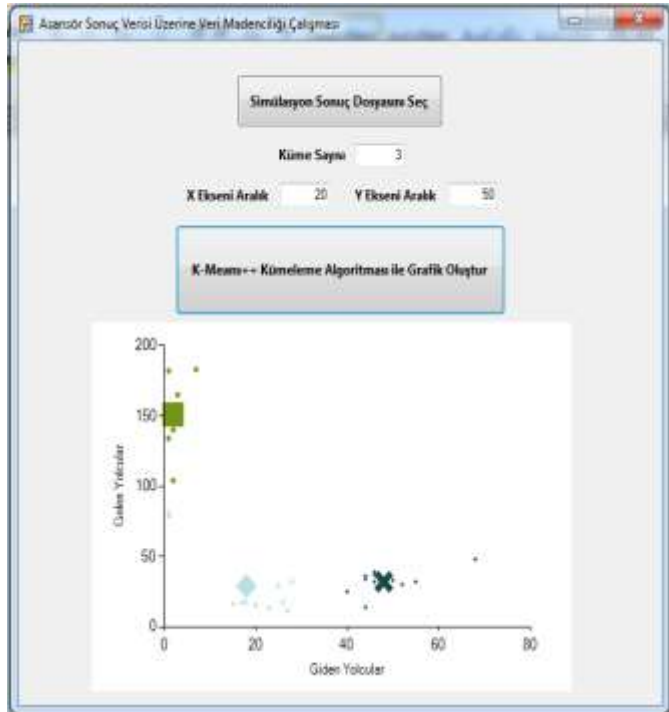
Kişi	Binddiği Kat	İndiği Kat	Asansöre Giriş
1. Kişi	2	3	10:00:00
2. Kişi	1	2	10:00:05
3. Kişi	1	2	10:00:10
4. Kişi	1	2	10:00:15
5. Kişi	1	2	10:00:20
6. Kişi	1	2	10:00:25
7. Kişi	1	2	10:00:30
8. Kişi	1	2	10:00:35
9. Kişi	1	2	10:00:40
10. Kişi	1	2	10:00:45
11. Kişi	1	2	10:00:50
12. Kişi	1	2	10:00:55

Şekil 3: Üretilen veri örneği.

Perhaps the most enjoyable emotion, however, was the sense of personal fulfillment. When it came to hacking, Stallman was a natural. A childhood's worth of late-night study sessions gave him the ability to work long hours with little sleep. As a social outcast since age 10, he had little difficulty working alone. And as a mathematician with built-in gift for logic and foresight, Stallman possessed the ability to circumvent design barriers that left most hackers spinning their wheels.

Geliştirilen Ek Program

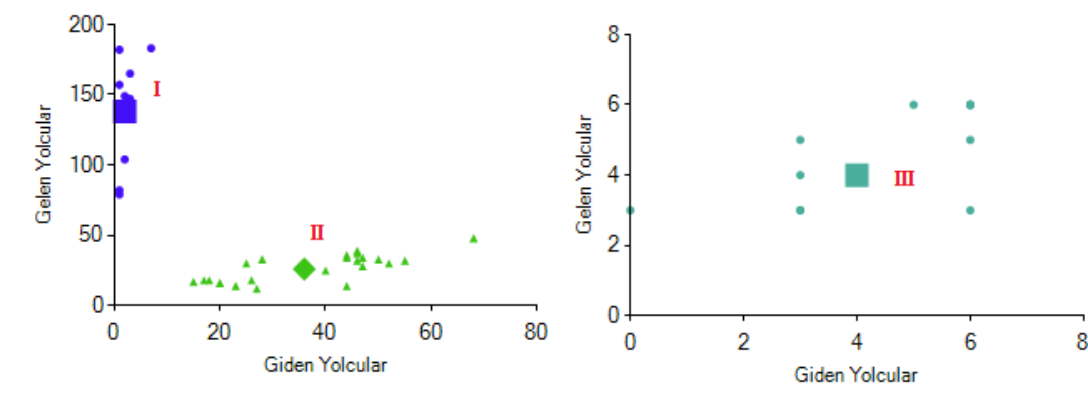
he had little difficulty working alone. And as a mathematician with built-in gift for logic and foresight, Stallman possessed the ability to circumvent design barriers that left most hackers spinning their wheels.



Şekil 4: Ek program görüntüsü.

Oluşabilecek Durumlar

Perhaps the most enjoyable emotion, however, was the sense of personal fulfillment. When it came to hacking, Stallman was a natural. A childhood's worth of late-night study sessions gave him the ability to work long hours with little sleep. As a social outcast since age 10, he had little difficulty working alone. And as a mathematician with built-in gift for logic and foresight, mvent design barriers that left most hackers spinning their wheels.

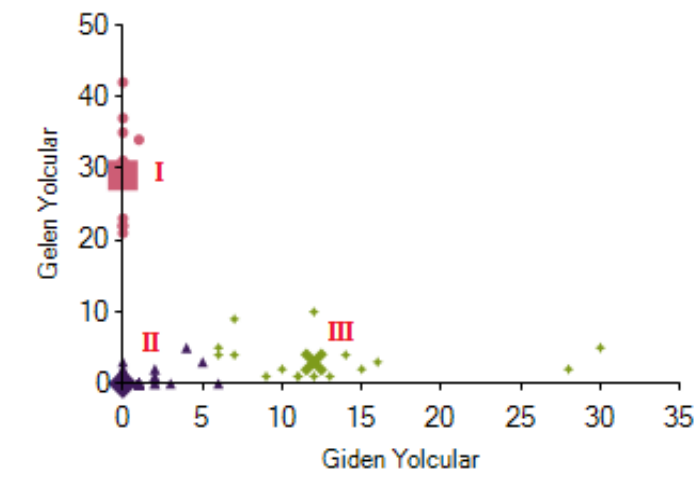


Şekil 5: Kümeleme sonucunda oluşabilecek durumlar.

Bir Okul Örneği

Perhaps the most enjoyable emotion, however, was the sense of personal fulfillment. When it came to hacking, Stallman was a natural. A childhood's worth of late-night study sessions gave him the ability to work long hours with little sleep. As a social outcast since age 10, he had little difficulty working alone. And as a mathematician with built-in gift for logic and foresight, Çizelge 2: Saat dilimlerine göre trafik türleri ve yolcu dağılımları

Saat Dilimi	Trafik Türü	Dağılımdaki Yolcu Sayısı
8:00 – 9:00	Yukarı Yoğun	20
9:00 – 10:00	Yukarı Yoğun	1
10:00 – 11:00	Yok	-
11:00 – 12:00	Yok	-
12:00 – 13:00	İki Yönlü Trafik	12
13:00 – 14:00	Yok	-
14:00 – 15:00	Yok	-
15:00 – 16:00	Aşağı Yoğun	20
16:00 – 17:00	Aşağı Yoğun	1



Şekil 6: Okulun asansör trafiği için kümeleme sonucu

Perhaps the most enjoyable emotion, however, was the sense of personal fulfillment. When it came to hacking, Stallman was a natural. A childhood's worth of late-night study sessions gave him the ability to work long hours with little sleep. As a social outcast since age 10,

Sonuçlar

Perhaps the most enjoyable emotion, however, was the sense of personal fulfillment. When it came to hacking, Stallman was a natural. A childhood's worth of late-night study sessions gave him the ability to work long hours with little sleep. As a social outcast since age 10, he had little difficulty working alone. And as a mathematician with built-in gift for logic and foresight, Stallman possessed the ability to circumvent design barriers that left most hackers spinning their wheels.

Ek A

Simülasyon Sonuçları			
Simülasyon Sonuçları			
Zaman Birimi: Saniye Toplam Geçen Süre: 09:00:00	Sisteme Giren Toplam Kişi: 1051 Hizmet Gören Toplam Kişi: 1051	Ortalama Bekleme Süresi: 21,07 Saniye Ortalama Transfer Süresi: 17,65 Saniye	
Ortalama Kuyruk Uzunluğu: 5,35 Kişi/Hesaplanma Sayısı		Performans: % 91,38	Dakikada Taşınan Kişi Sayısı: 1,9
Hizmet Gören Kişiler			
Kişi	Bindiği Kat	İndiği Kat	Asansöre Giriş
1. Kişi	1	2	08:03:19
2. Kişi	1	2	08:03:19
3. Kişi	1	2	08:03:19
4. Kişi	1	2	08:03:19
5. Kişi	1	3	08:03:19
6. Kişi	1	3	08:03:19
7. Kişi	1	2	08:03:20
8. Kişi	1	2	08:03:20
9. Kişi	1	2	08:03:20
10. Kişi	1	2	08:03:20
11. Kişi	1	4	08:03:19
12. Kişi	1	3	08:03:20
Yapılan Çağrılar			
Kat	Yön	Çağrı Zamanı	
1	YUKARI	08:03:19	
4	YUKARI	08:03:19	
1	YUKARI	08:03:19	
1	YUKARI	08:03:20	
4	YUKARI	08:03:37	
1	YUKARI	08:03:49	
1	YUKARI	08:06:41	
2	YUKARI	08:06:41	
3	YUKARI	08:06:41	
1	YUKARI	08:06:41	
1	YUKARI	08:06:59	
1	YUKARI	08:07:11	