

# Intelligent Improved Acceleration Fonksiyonunun MATLAB Simulink Ortamında Modellenmesi

Hazırlayan:

Ad: Fatih Küçükbiyik

Ders: Taşıt Modelleme ve İleri Sürüş Destek Sistemleri

Karadeniz Teknik Üniversitesi  
Fakülte: Mühendislik Fakültesi  
Bölüm: Bilgisayar Mühendisliği

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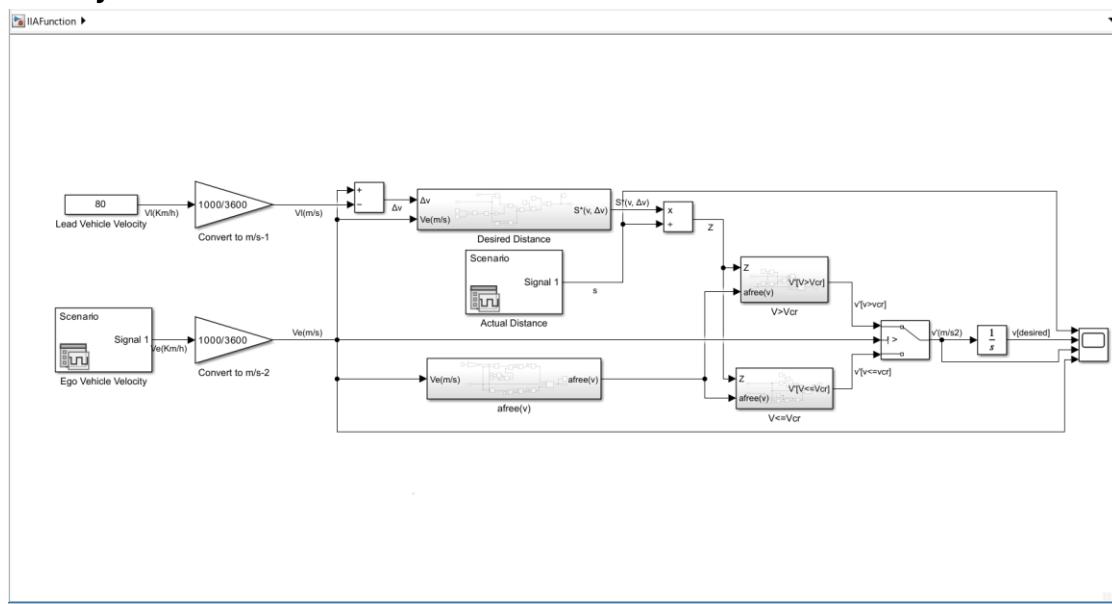
- Parametre Tanımlamaları

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1 Cs = 100; % Cruise speed = 100km/h
2 Ac = 2; % Aggressiveness coefficient
3 T = 1.5; % Time-gap
4 S0 = 2; % Jam distance (distance between vehicles when stopped)
5 a = 2; % Maximum acceleration (~2 m/s)
6 b = 2; % Minimum deceleration, (~-2m/s)
7 sim('IIAFunction.slx')

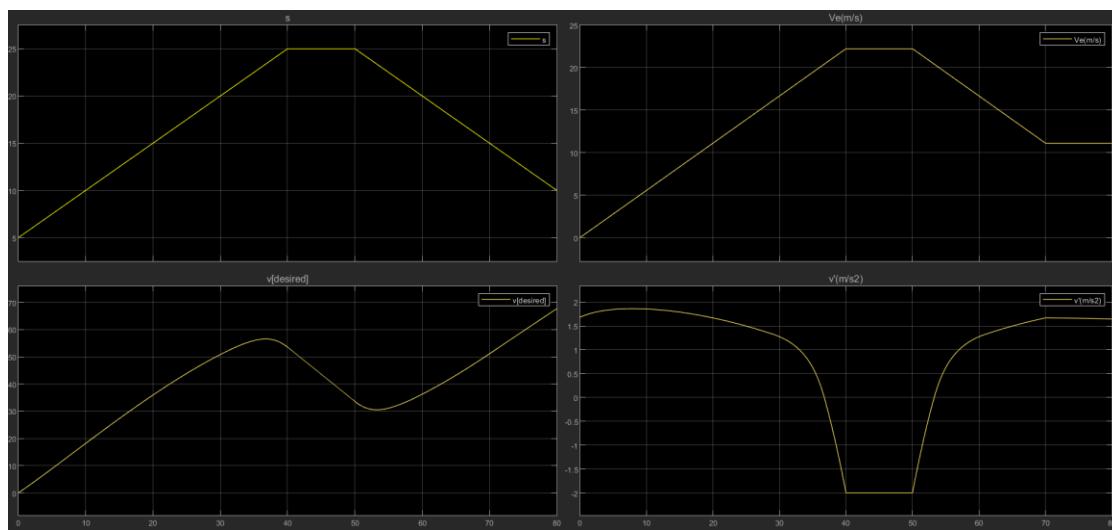
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- Fonksiyonun Genel Modeli

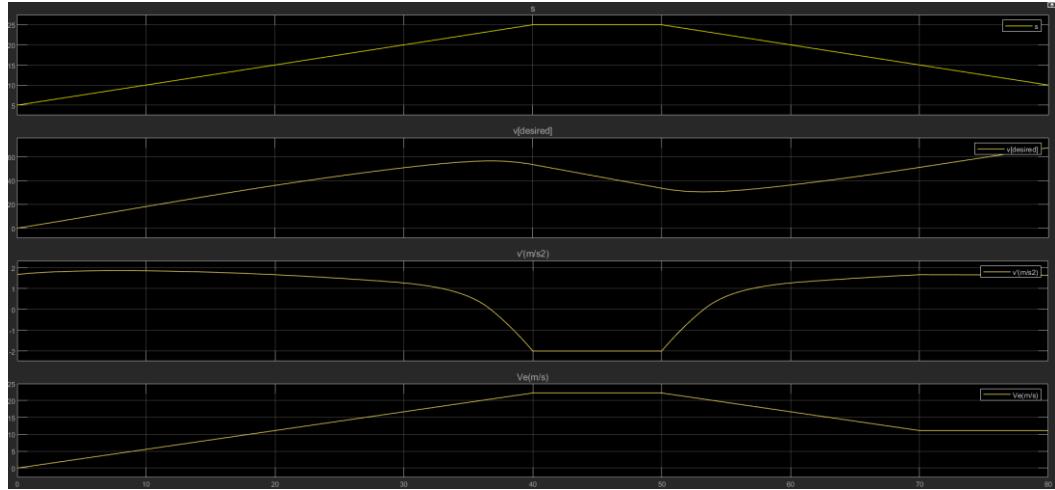


- Input ve Output Grafikleri

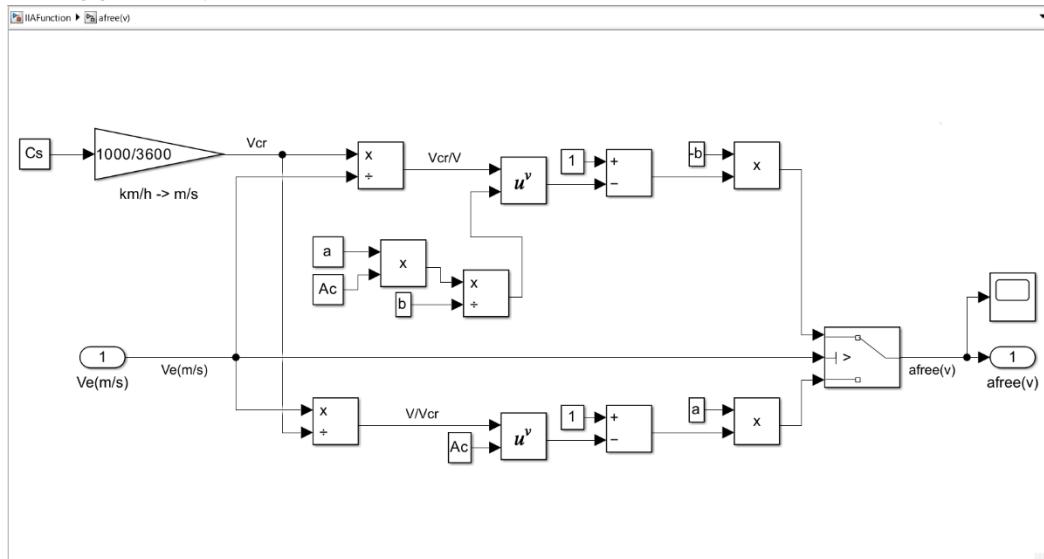
- Grafik-1



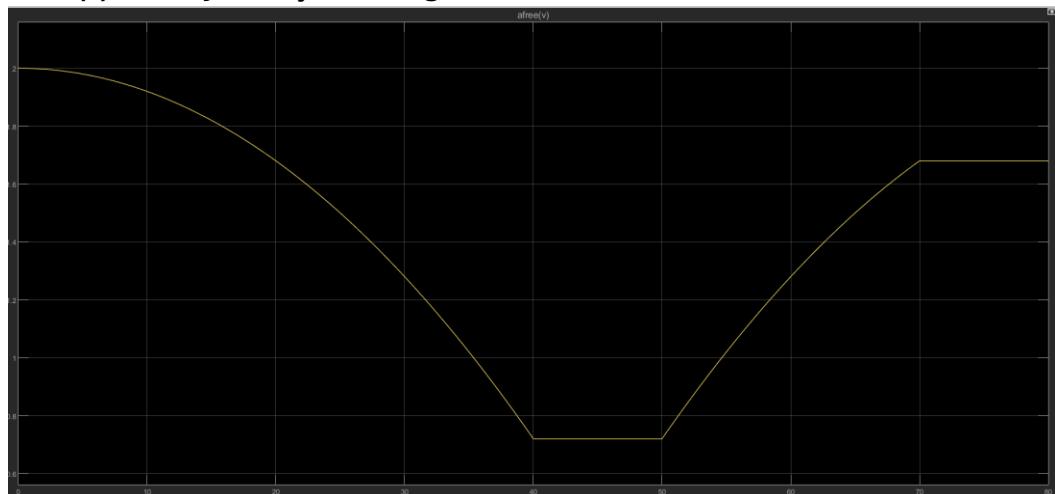
- **Grafik-2**



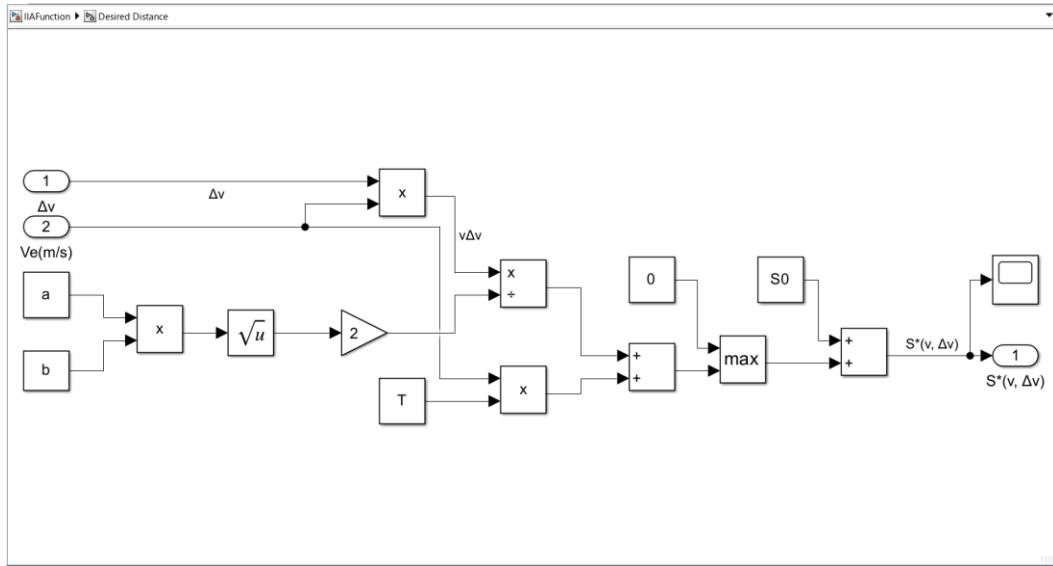
- **afree(v) Fonksiyonun Modeli**



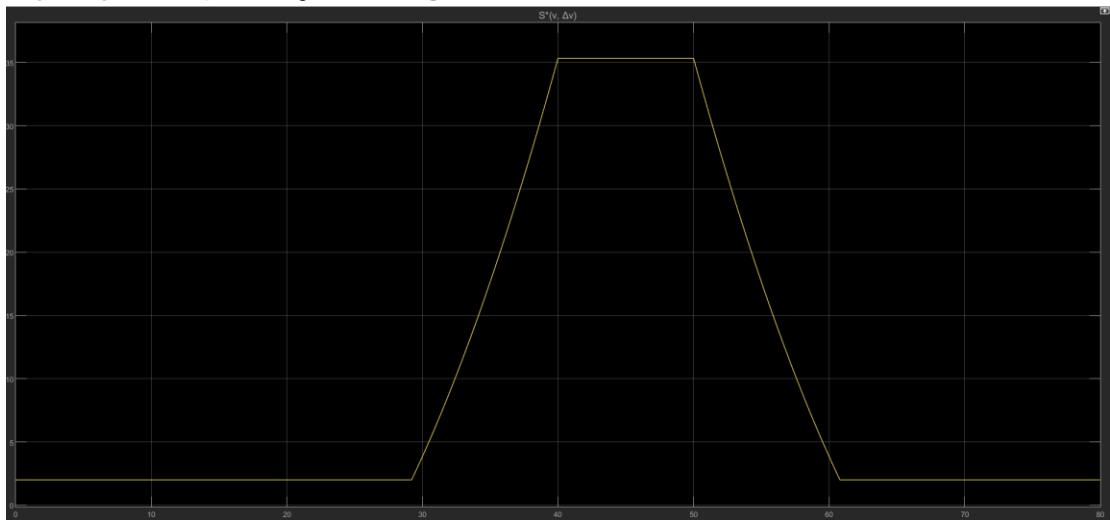
- **afree(v) Fonksiyonun Çıktı Grafiği**



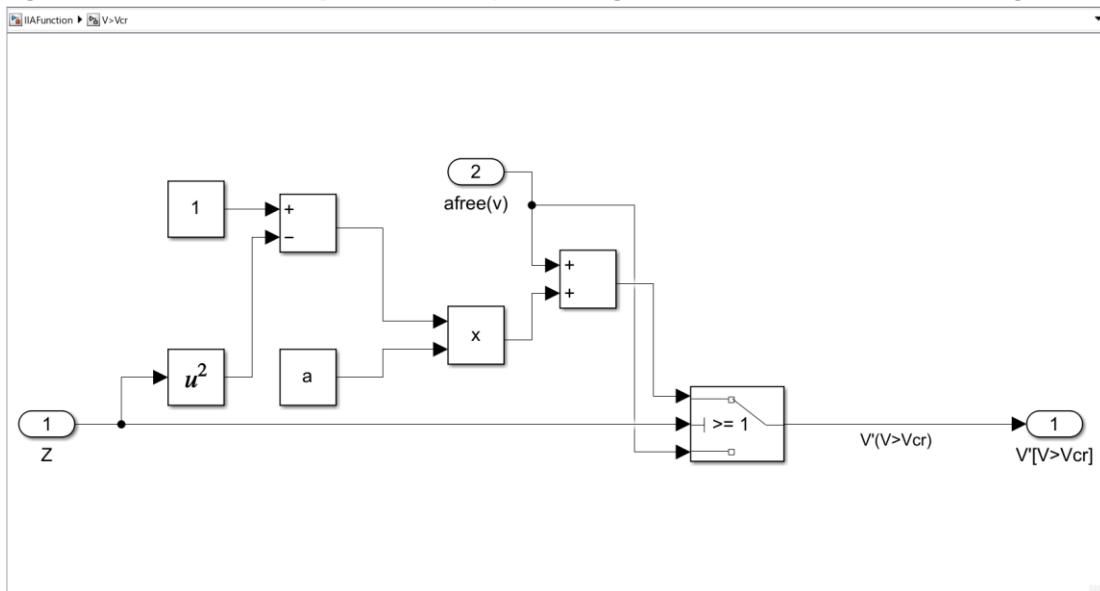
- **$s^*(v, \Delta v)$  Fonksiyonun Modeli**



- **$s^*(v, \Delta v)$  Fonksiyonun Çıktı Grafiği**



- Ego Aracın Hızı Cruise Speed' den Büyük Olduğu Durumda İstenilen İvme Değeri



- Ego Aracın Hızı Cruise Speed' den Küçük veya Eşit Olduğu Durumda İstenilen İvme Değeri

