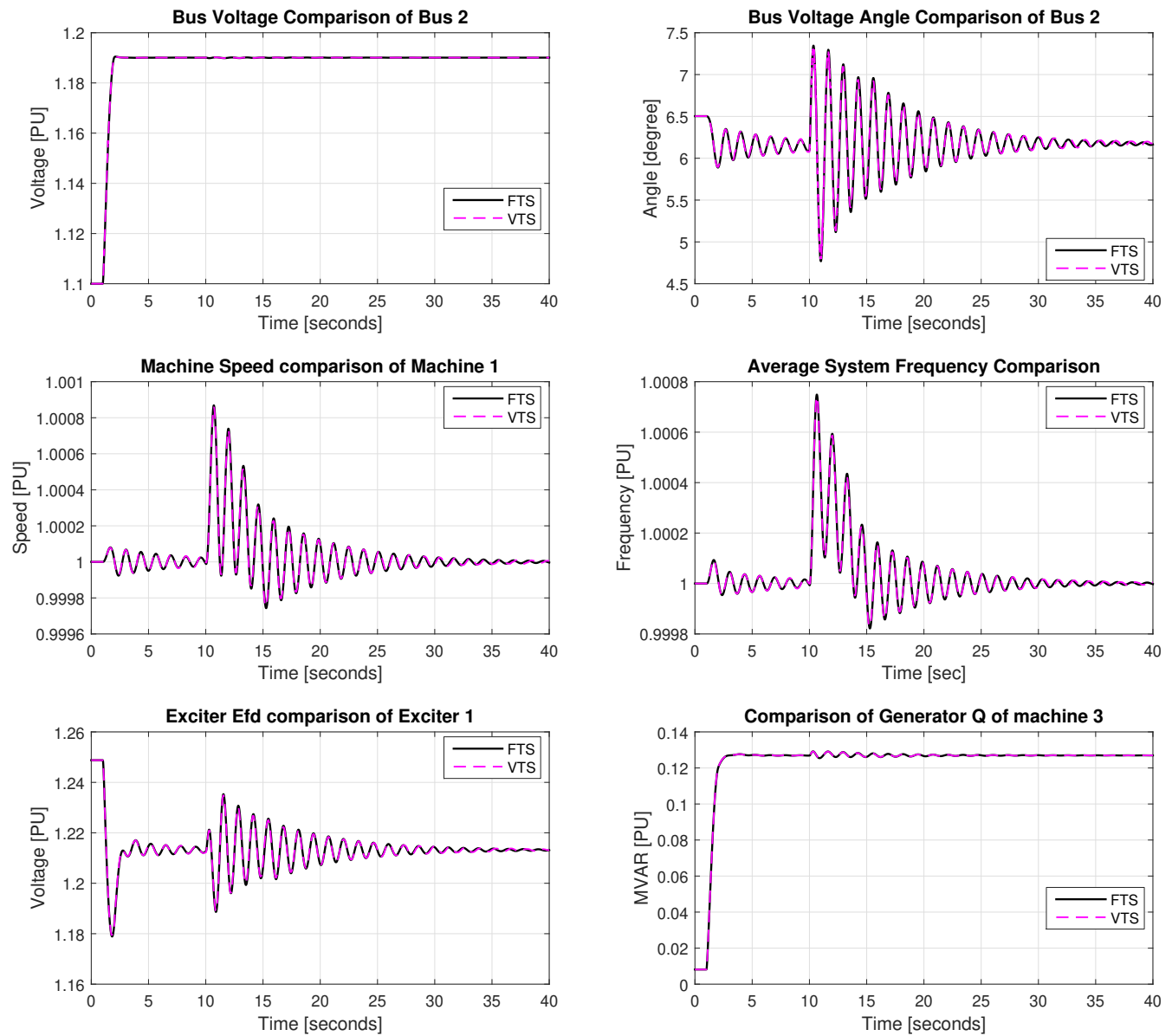## Example IVM Modulation Results using FTS and VTS (ode23t)
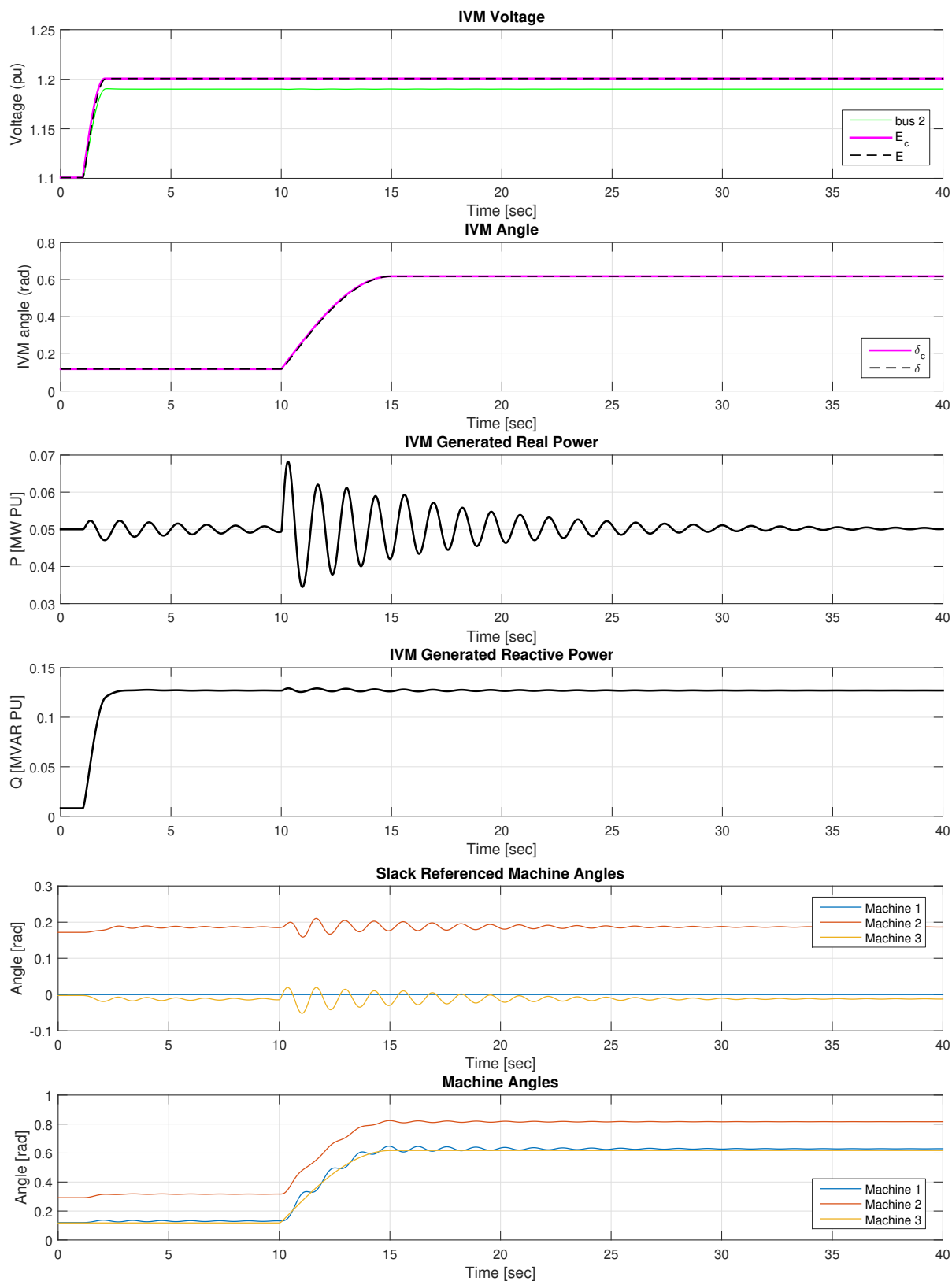
Modulating IVM angle 'moves' entire system.

Bus Voltage Comparison of Bus 2

Bus Voltage Angle Comparison of Bus 2

Machine Speed comparison of Machine 1

Average System Frequency Comparison

Exciter Efd comparison of Exciter 1

Comparison of Generator Q of machine 3

IVM appears to be handled well in VTS mode.

Time Step Comparison

Average Time Step: 0.057
Maximum Time Step: 0.529
Minimum Time Step: 0.00417

Number of Network and Dynamic Solutions

Average Solutions per step: 2
Maximum Solutions per step: 60
Total Solutions: 1564
Total Steps: 703

Number of Network and Dynamic Solutions (Detail)
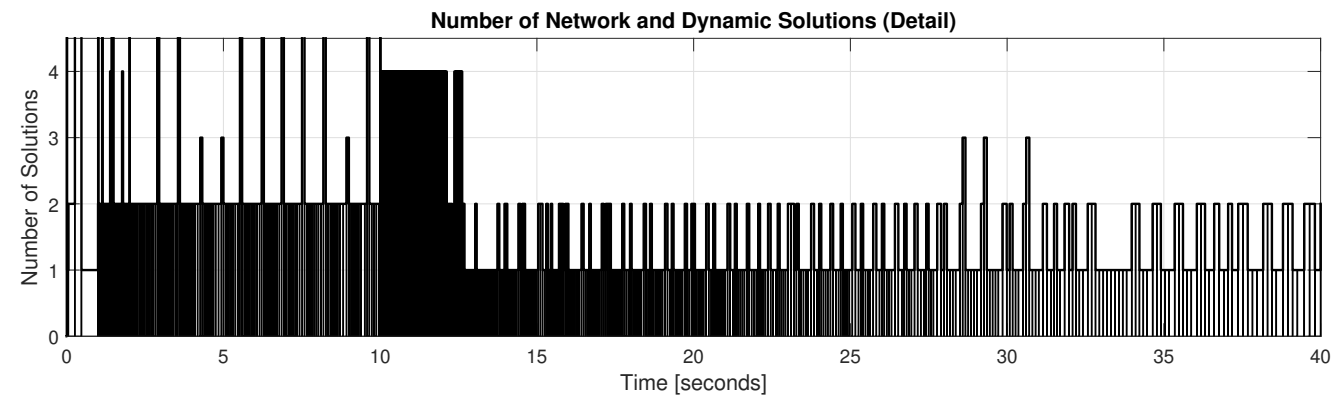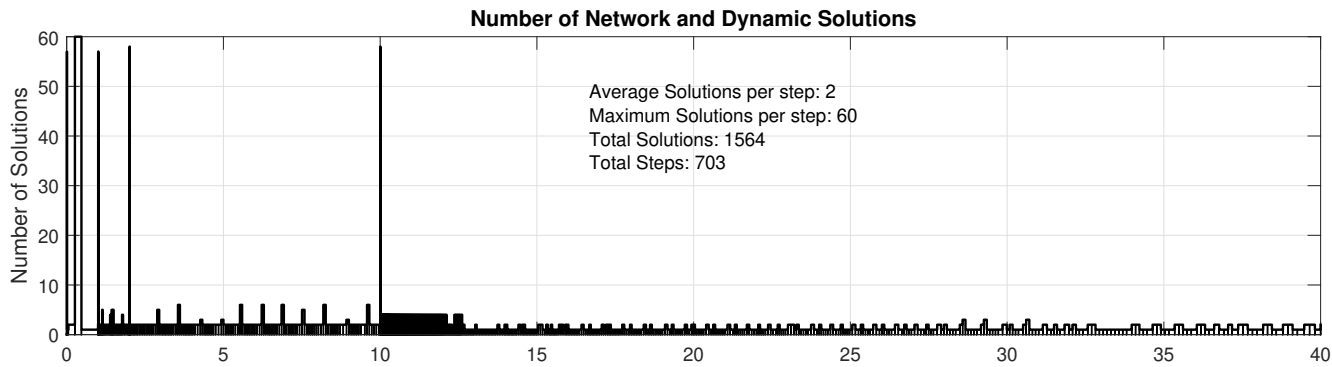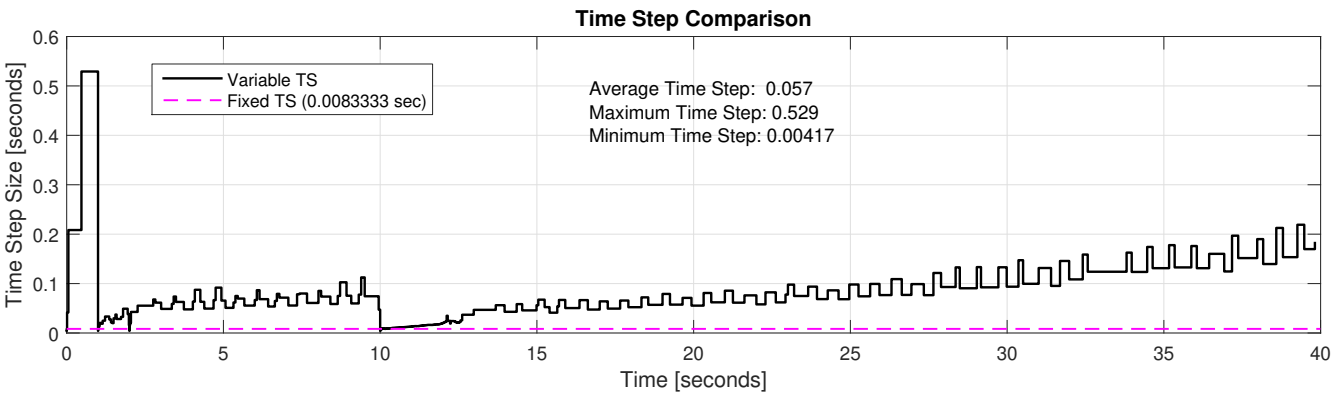
| Version | Step Size [seconds] | | | | Solutions Per Step | | | | |
	Max.	Min.	Ave.	Total Steps	Ave.	Max.	Total Slns.	Sim. Time	Speed Up
FTS	0.0083	0.00830	0.0083	4,801	2	2	9,602	17.13	1.00
VTS	0.5290	0.00417	0.0570	703	2	60	1,564	5.49	3.12

VTS (ode23t) carried out the simulation 3.12 times faster than FTS (Huen's Method).