



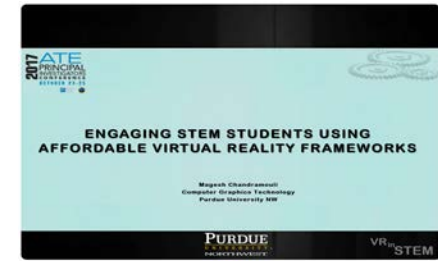
Engaging STEM Students Using Affordable VR Frameworks

Magesh Chandramouli – magesh@purdue.edu

Date: Tuesday, October 24

Time: 4:30 – 5:00 p.m.

Room: Diplomat



Steps in Building Affordable VR Framework for STEM Applications

Component I: Application-Specific Component	NOTES
<ul style="list-style-type: none"> ◆ What is the Specific STEM Application? <ul style="list-style-type: none"> ○ Identify Objectives /Sub-Objectives 	<hr/> <hr/> <hr/>
<ul style="list-style-type: none"> ◆ Define Scope <ul style="list-style-type: none"> ○ Decide what will this include ; identify components 	<hr/> <hr/> <hr/>
<ul style="list-style-type: none"> ◆ Concept Inventory Aligned with Scope <ul style="list-style-type: none"> ○ Build a 'Concept Inventory' based on careful literature review ○ Organize and Itemize based on Order of Importance 	<hr/> <hr/> <hr/>
<ul style="list-style-type: none"> ◆ Storyboarding and/or Mind Mapping <ul style="list-style-type: none"> ○ Create Modules corresponding to the above organization ○ Use Storyboards or Mind mapping to layout the modules (for VR) 	<hr/> <hr/> <hr/>
<ul style="list-style-type: none"> ◆ Other Considerations <ul style="list-style-type: none"> ○ Budget ○ Target Audience (Demographics and any other relevant factors) ○ Number of Users 	<hr/> <hr/> <hr/>





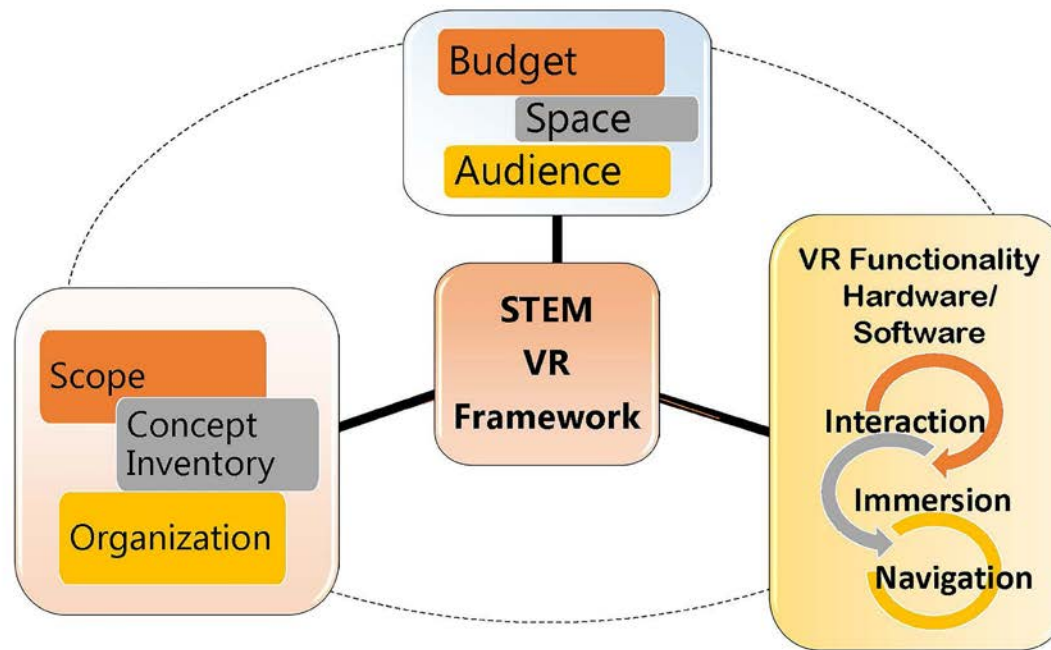
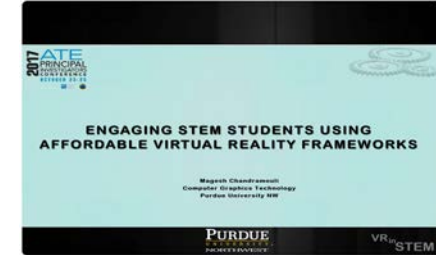
Engaging STEM Students Using Affordable VR Frameworks

Magesh Chandramouli – magesh@purdue.edu

Date: Tuesday, October 24

Time: 4:30 – 5:00 p.m.

Room: Diplomat



VR Framework for STEM Applications





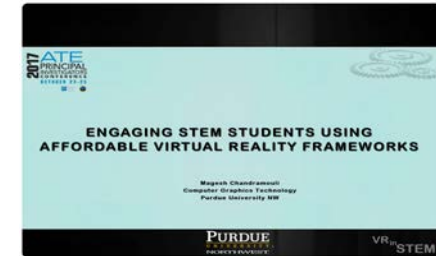
Engaging STEM Students Using Affordable VR Frameworks

Magesh Chandramouli – magesh@purdue.edu

Date: Tuesday, October 24

Time: 4:30 – 5:00 p.m.

Room: Diplomat



Steps in Building Affordable VR Framework for STEM Applications

Component II: Virtual Reality (VR) Component	NOTES
Refer Modules from Component I (<i>Align with Scope and Modules</i>) <ul style="list-style-type: none"> ◆ What level of User Interaction is required? (Is Interaction required?) ◆ What kind of interactions are required? ◆ What learning outcomes will be obtained?
Refer Modules from Component I (<i>Align with Scope and Modules</i>) <ul style="list-style-type: none"> ◆ What level of immersion is required? (Is Immersion required?) ◆ What kind of immersive activities have been identified in storyboard? ◆ What learning outcomes will be obtained?
Refer Modules from Component I (<i>Align with Scope and Modules</i>) <ul style="list-style-type: none"> ◆ What level of navigation is required? (Is Immersion required?) ◆ What kind of navigable activities have been identified in storyboard? ◆ What learning outcomes will be obtained?
<ul style="list-style-type: none"> ◆ Are there health and/or safety considerations involved?
<ul style="list-style-type: none"> ◆ What are the VR Hardware (Equipment) Required? ◆ What Software will be used to generate the VR Modules?

