

SYLLABUS

<i>Classification</i>	Lecture6	<i>Course No.</i>		<i>Instructor</i>	Teun-Teun Kim
<i>Course Title</i>	The rediscovery of light with artificial materials				
<i><u>Course Outline</u></i>					
<p>This lecture provides an introduction to the metamaterials and metasurfaces, including the following topics:</p> <ul style="list-style-type: none">• Fundamentals of optics: Refraction, reflection and polarizaiton.-Metamaterials<ul style="list-style-type: none">• The rediscovery of refraction I: Metamaterials<ul style="list-style-type: none">-Negative refraction, optical cloaking• The rediscovery of refraction II: Metasurfaces<ul style="list-style-type: none">-Flat lens: Metalens• Graphene Metamaterials: Light matter interaction in atomic thickness level-THz spectroscopy<ul style="list-style-type: none">• Fundamentals of THz spectroscopy• THz near-field spectroscopy• Early diagnosis for Alzheimer's disease					
<i>Prerequisite and References</i>					