



भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर  
Indian Institute of Technology Bhubaneswar

Media/Publication	The Times of India		
Date	15 <sup>th</sup> June, 2024	Language	English
Headline	IIT Bhubaneswar to collaborate with industry to conduct research in compound semiconductor field		
Link	<a href="https://timesofindia.indiatimes.com/city/bhubaneswar/iit-bhubaneswar-to-collaborate-with-industry-to-conduct-research-in-compound-semiconductor-field/articleshow/111026231.cms">https://timesofindia.indiatimes.com/city/bhubaneswar/iit-bhubaneswar-to-collaborate-with-industry-to-conduct-research-in-compound-semiconductor-field/articleshow/111026231.cms</a>		

BHUBANESWAR: IIT Bhubaneswar will collaborate with a private company to conduct research in the field of Compound Semiconductors. As a part of this collaboration, a project will be taken up to indigenize Silicon Carbide (SiC) crystal growth at IIT Bhubaneswar with an estimated cost of Rs 45 crore.

This project would bring in the know-how of high-volume production of 150 mm and 200 mm SiC wafers.

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The company also plans to establish a SiC process fabrication and assembly, testing, marking, and packaging (ATMP) plant in Odisha.

To go ahead with this project, the national institute has signed a memorandum of agreement with SiCSem Private Limited for industry-academia collaboration. The company will establish the facility at IIT Bhubaneswar, while the institute will provide manpower for the research and development works.

The product generated through the project can be replicated in a big way through the company's plant. The institute will work as a catalyst in this project, said the official sources.



## भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर Indian Institute of Technology Bhubaneswar

Shreepad Karmalkar, director of IIT Bhubaneswar and an expert in semiconductor devices, said such type of collaborations will help India to become self-sufficient in power semiconductor devices for advanced technologies such as electric vehicles (EVs), fast chargers, green energy, PV inverters, motor controls, and beyond 5G communication.

He said this collaboration will promote innovation and self-reliance in SiC crystal growth and represents a major industry-academia partnership for IIT Bhubaneswar.

"The collaboration will contribute significantly to the development of the semiconductor ecosystem in Odisha and the nation's semiconductor industry, in line with India Semiconductor Mission, Make in India and Atmanirbhar Bharat initiatives," he added.

Karmalkar said silicon carbide fabs have comparatively lower investment requirements than typical silicon fabs, simpler technology, and potentially significant benefits for India.

"India has to lower its import cost and work towards semiconductor self-sufficiency in light of the expanding demand from a number of industries, including computers and electronics, telecommunications, energy, autos and transportation, and healthcare. For Indian businesses, this is a very promising scenario," he added.

On July 24, 2022, IIT Bhubaneswar had received administrative approval from the ministry of electronics and information technology for implementation of the Chips to Startup (C2S) programme. C2S is a part of the Centre's plan to transform India into the next semiconductor hub.



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Indian Institute of Technology Bhubaneswar

Media/Publication	The New Indian Express		
Date	17 <sup>th</sup> June, 2024	Language	English
Headline	SiCSem plans plant in Odisha, ties up with IIT		
Link	<a href="https://www.newindianexpress.com/states/odisha/2024/Jun/17/sicsem-plans-plant-in-odisha-ties-up-with-iit">https://www.newindianexpress.com/states/odisha/2024/Jun/17/sicsem-plans-plant-in-odisha-ties-up-with-iit</a>		

BHUBANESWAR : Chennai-based SiCSem Private Limited has planned to establish a SiC process fabrication and assembly, testing and packaging (ATMP) plant in Odisha.

This will help India become self-sufficient in power semiconductor devices for advanced technologies such as electric vehicles (EVs), fast chargers, green energy, photovoltaic inverters, motor controls, and beyond 5G communication.

The company on Saturday collaborated with Indian Institute of Technology-Bhubaneswar (IIT-BBS) for research in the field of compound semiconductors.

The first project to be carried out as part of the agreement is to indigenise silicon carbide (SiC) crystal growth at IIT Bhubaneswar. Estimated at a cost Rs 45 crore, the project will bring in the know-how of high volume production of 150 mm and 200 mm SiC wafers.

Director of IIT-Bhubaneswar Prof Shreepad Karmalkar, an expert in semiconductor devices, said the collaboration will promote innovation and self-reliance in SiC crystal growth, and represents a major industry-academia partnership.

The partnership will contribute significantly to the development of the semiconductor ecosystem in Odisha and the nation's semiconductor industry in line with India's Semiconductor Mission, Make-in-India and Atmanirbhar Bharat initiatives, he added.



भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर  
Indian Institute of Technology Bhubaneswar

Media/Publication	Odishabytes.com		
Date	15 <sup>th</sup> June, 2024	Language	English
Headline	SiCSem Ties Up With IIT-Bhubaneswar For Research On Compound Semiconductor		
Link	<a href="https://odishabytes.com/sicsem-ties-up-with-iit-bhubaneswar-for-research-on-compound-semiconductor/">https://odishabytes.com/sicsem-ties-up-with-iit-bhubaneswar-for-research-on-compound-semiconductor/</a>		

Bhubaneswar: SiCSem Private Limited and the Indian Institute of Technology Bhubaneswar (IIT), Bhubaneswar signed a Memorandum of Agreement to collaborate on research in the field of Compound Semiconductors. The first project to be carried out as part of the agreement would indigenise Silicon Carbide (SiC) crystal growth at IIT-Bhubaneswar. Estimated to cost Rs 45 crore, this project would bring in the know-how of high volume production of 150 mm and 200 mm SiC wafers, according to a press release of Ministry of Education on Saturday.

SiCSem Private Limited plans to establish a SiC process fabrication and ATMP plant in Odisha. This will help India become self-sufficient in power semiconductor devices for advanced technologies such as electric vehicles (EVs), fast chargers, green energy, PV inverters, motor controls and beyond 5G communication.

Prof Shreepad Karmalkar, Director of IIT-Bhubaneswar and an expert in semiconductor devices, said the collaboration would promote innovation and self-reliance in SiC crystal growth. It also represents a major industry-academia partnership for the IIT.

“The collaboration will contribute significantly to development of semiconductor ecosystem in Odisha and the nation’s semiconductor industry, in line with India Semiconductor Mission, Make in India and Atmanirbhar Bharat initiatives,” he added.



भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर  
Indian Institute of Technology Bhubaneswar

Media/Publication	Prameya News.com		
Date	15 <sup>th</sup> June, 2024	Language	English
Headline	SiCSem to collaborate with IIT Bhubaneswar for building Compound Semiconductor ecosystem		
Link	<a href="https://www.prameyanews.com/sicsem-to-collaborate-with-iit-bhubaneswar-for-building-compound-semiconductor-ecosystem">https://www.prameyanews.com/sicsem-to-collaborate-with-iit-bhubaneswar-for-building-compound-semiconductor-ecosystem</a>		

Bhubaneswar, June 15: SiCSem Private Limited and the Indian Institute of Technology Bhubaneswar (IIT) Bhubaneswar signed a Memorandum of Agreement to collaborate on research in the field of Compound Semiconductors.

The first project to be carried out as part of this agreement would indigenize Silicon Carbide (SiC) crystal growth at IIT Bhubaneswar. Estimated to cost Rs 45 crore, this project would bring in the know-how of high volume production of 150 mm and 200 mm SiC wafers. SiCSem Private Limited plans to establish a SiC process fabrication and ATMP plant in Odisha.

This will help India to become self-sufficient in power semiconductor devices for advanced technologies such as electric vehicles (EVs), fast chargers, green energy, PV inverters, motor controls, and beyond 5G communication.

Prof. Shreepad Karmalkar, Director of IIT Bhubaneswar and an expert in semiconductor devices, said that this collaboration will promote innovation and self-reliance in SiC crystal growth, and represents a major industry-academia partnership for IIT Bhubaneswar. The collaboration will contribute significantly to the development of the semiconductor ecosystem in Odisha and the nation's semiconductor industry, in line with India Semiconductor Mission, Make in India and Atmanirbhar Bharat initiatives.



भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर  
Indian Institute of Technology Bhubaneswar

Media/Publication	India Education Diary.com		
Date	15 <sup>th</sup> June, 2024	Language	English
Headline	SiCSem To Collaborate With IIT Bhubaneswar For Building The Compound Semiconductor Ecosystem In India		
Link	<a href="https://indiaeducationdiary.in/sicsem-to-collaborate-with-iit-bhubaneswar-for-building-the-compound-semiconductor-ecosystem-in-india/">https://indiaeducationdiary.in/sicsem-to-collaborate-with-iit-bhubaneswar-for-building-the-compound-semiconductor-ecosystem-in-india/</a>		

Bhubaneswar : SiCSem Private Limited and the Indian Institute of Technology Bhubaneswar (IIT) Bhubaneswar signed a Memorandum of Agreement to collaborate on research in the field of Compound Semiconductors. The first project to be carried out as part of this agreement would indigenize Silicon Carbide (SiC) crystal growth at IIT Bhubaneswar. Estimated to cost Rs. 45 crore, this project would bring in the know-how of high volume production of 150 mm and 200 mm SiC wafers. SiCSem Private Limited plans to establish a SiC process fabrication and ATMP plant in Odisha. This will help India to become self-sufficient in power semiconductor devices for advanced technologies such as electric vehicles (EVs), fast chargers, green energy, PV inverters, motor controls, and beyond 5G communication. Prof. Shreepad Karmalkar, Director of IIT Bhubaneswar and an expert in semiconductor devices, said that this collaboration will promote innovation and self-reliance in SiC crystal growth, and represents a major industry-academia partnership for IIT Bhubaneswar. The collaboration will contribute significantly to the development of the semiconductor ecosystem in Odisha and the nation's semiconductor industry, in line with India Semiconductor Mission, Make in India and Atmanirbhar Bharat initiatives.



## भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर Indian Institute of Technology Bhubaneswar

Media/Publication	The Pragativadi.com		
Date	15 <sup>th</sup> June, 2024	Language	English
Headline	IIT-SiCSem to collaborate for building ecosystem for compound semiconductor		
Link	<a href="https://pragativadi.com/sicsem-to-collaborate-with-iit-bhubaneswar-for-building-compound-semiconductor-ecosystem-in-india/">https://pragativadi.com/sicsem-to-collaborate-with-iit-bhubaneswar-for-building-compound-semiconductor-ecosystem-in-india/</a>		

SiCSem Private Limited and the Indian Institute of Technology Bhubaneswar (IIT) Bhubaneswar signed a Memorandum of Agreement to collaborate on research in the field of Compound Semiconductors.

The first project to be carried out as part of this agreement would indigenize Silicon Carbide (SiC) crystal growth at IIT Bhubaneswar. Estimated to cost Rs. 45 crore, this project would bring in the know-how of high-volume production of 150 mm and 200 mm SiC wafers.

SiCSem Private Limited plans to establish a SiC process fabrication and ATMP plant in Odisha. This will help India to become self-sufficient in power semiconductor devices for advanced technologies such as electric vehicles (EVs), fast chargers, green energy, PV inverters, motor controls, and beyond 5G communication.

Prof. Shreepad Karmalkar, Director of IIT Bhubaneswar and an expert in semiconductor devices, said that this collaboration will promote innovation and self-reliance in SiC crystal growth, and represents a major industry-academia partnership for IIT Bhubaneswar.

The collaboration will contribute significantly to the development of the semiconductor ecosystem in Odisha and the nation's semiconductor industry, in line with the India Semiconductor Mission, Make in India and Atmanirbhar Bharat initiatives.





Media/Publication	The Pioneer		
Date	16 <sup>th</sup> June, 2024	Language	English
Headline	Building semiconductor ecosystem in India: SiCSem to collaborate with IIT Bhubaneswar		

## Building semiconductor ecosystem in India

SiCSem to collaborate with IIT Bhubaneswar

PNS ■ BHUBANESWAR

**T**he SiCSem Private Limited and the Indian Institute of Technology (IIT) Bhubaneswar have signed a Memorandum of Agreement to collaborate on research in the field of Compound Semiconductors.

The first project to be carried out as part of this agreement would indigenise Silicon Carbide (SiC) crystal growth at IIT Bhubaneswar. Estimated to cost Rs 45 crore, the project would bring in the knowhow of high-volume production of 150 mm and 200 mm SiC wafers.

The SiCSem Private Limited plans to establish a SiC process fabrication and ATMP plant in Odisha. This

will help India become self-sufficient in power semiconductor devices for advanced technologies such as electric vehicles (EVs), fast chargers, green energy, PV inverters, motor controls and beyond 5G communication.

Prof Shreepad Karmalkar, Director of IIT Bhubaneswar and an expert in semiconductor devices, said this collaboration would promote innovation and self-reliance in SiC crystal growth and represent a major industry-academia partnership for IIT Bhubaneswar. The collaboration will contribute significantly to the development of the semiconductor ecosystem in Odisha and the nation's semiconductor industry in line with the India Semiconductor Mission, Make in India and Atmanirbhar Bharat initiatives.





भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर  
Indian Institute of Technology Bhubaneswar

Media/Publication	The Statesman		
Date	16 <sup>th</sup> June, 2024	Language	English
Headline	SiCSem collaborates with IIT Bhubaneswar for semiconductors		

## SiCSem collaborates with IIT Bhubaneswar for semiconductors

### STATESMAN NEWS SERVICE

BHUBANESWAR, 15 JUNE:

SiCSem Private Limited and the Indian Institute of Technology Bhubaneswar (IIT) Bhubaneswar signed a Memorandum of Agreement to collaborate on research in the field of Compound Semiconductors.

The first project to be carried out as part of this agreement would indigenize Silicon Carbide (SiC) crystal

growth at IIT Bhubaneswar. Estimated to cost Rs. 45 crore, this project would bring in the know-how of high volume production of 150 mm and 200 mm SiC wafers.

SiCSem Private Limited plans to establish a SiC process fabrication and ATMP plant in Odisha. This will help India to become self-sufficient in power semiconductor devices for advanced technologies such as electric vehicles (EVs),

fast chargers, green energy, PV inverters, motor controls, and beyond 5G communication.

Prof. Shreepad Karmalkar, Director of IIT Bhubaneswar and an expert in semiconductor devices, said that this collaboration will promote innovation and self-reliance in SiC crystal growth, and represents a major industry-academia partnership for IIT Bhubaneswar.



# भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर Indian Institute of Technology Bhubaneswar

Media/Publication	The Political & Business Daily		
Date	16 <sup>th</sup> June, 2024	Language	English
Headline	IIT Bhubaneswar propagates Open-Source Movement		

## SiCSem, IIT Bhubaneswar partner to advance Compound Semiconductor ecosystem in India

PBD BUREAU

BHUBANESWAR, JUN 15

SICSEM Private Limited and the Indian Institute of Technology Bhubaneswar (IIT Bhubaneswar) have entered into an agreement aimed at pioneering research in Compound Semiconductors. The partnership's inaugural project will focus on indigenous Silicon Carbide (SiC) crys-



tal growth, with an estimated investment of Rs. 45 crore.

This initiative aims to establish high-volume production capabilities for 150 mm and 200 mm SiC

wafers, crucial for advancing technologies such as electric vehicles (EVs), green energy solutions, and beyond 5G communications.

As part of this collabo-

ration, SiCSem Private Limited plans to establish a SiC process fabrication and ATMP (Assembly, Testing, Marking, and Packaging) plant in Odisha. This strategic move is poised to bolster India's self-sufficiency in power semiconductor devices, reinforcing national initiatives such as the India Semiconductor Mission, Make in India, and Atmanirbhar Bharat.

Prof. Shreepad

Karmalkar, Director of IIT Bhubaneswar and a semiconductor devices expert, emphasized that this collaboration marks a significant stride towards fostering innovation and self-reliance in SiC crystal growth. He highlighted the partnership's potential to catalyze the semiconductor ecosystem in Odisha, contributing to the nation's semiconductor industry at large.



# भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर Indian Institute of Technology Bhubaneswar

Media/Publication	The Orissa Post		
Date	16 <sup>th</sup> June, 2024	Language	English
Headline	MoU inked to boost research on semiconductors		

## MoU inked to boost research on semiconductors

*The collaboration between IIT Bhubaneswar and SiCSem Private Limited will contribute significantly in line with India Semiconductor Mission, Make in India and Atmanirbhar Bharat initiatives*

POST NEWS NETWORK

**Bhubaneswar, June 15:** Indian Institute of Technology (IIT) Bhubaneswar signed a

Memorandum of Agreement with SiCSem Private Limited for collaborative research in the field of compound semiconductors here, Saturday.

The foremost project to be carried under the agreement is to indigenise Silicon Carbide (SiC) crystal growth at IIT-Bhubaneswar. Estimated at a cost of ₹45 crore, this project would solve the basics of high volume production of 150mm and 200mm SiC wafers.

Director of IIT-Bhubaneswar Shreepad Karmalkar said, "The



collaboration will promote innovation and self-reliance in SiC crystal growth, and will represent a major industry-academia

partnership for the university. The collaboration will contribute significantly in line with India Semiconductor Mission, Make in India and Atmanirbhar Bharat initiatives."

SiCSem Private Limited plans to establish a SiC process fabrication and ATMP plant in the state. This will help the state to become self-sufficient in power semiconductor devices for advanced technologies such as electric vehicles (EVs), fast chargers, green energy, PV inverters, motor controls, and beyond 5G communications.



भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर  
Indian Institute of Technology Bhubaneswar

Media/Publication	The Around Odisha		
Date	17 <sup>th</sup> June, 2024	Language	English
Headline	SiCSem To Collaborate With IIT Bhubaneswar For Building The Compound Semiconductor Ecosystem In India		

## SiCSem to collaborate with IIT Bhubaneswar for building the Compound Semiconductor ecosystem in India

Bhubaneswar, : SiCSem Private Limited and the Indian Institute of Technology Bhubaneswar (IIT) Bhubaneswar signed a Memorandum of Agreement to collaborate on research in the field of Compound Semiconductors. The first project to be carried out as part of this agreement would indigenize Silicon Carbide (SiC) crystal growth at IIT Bhubaneswar. Estimated to cost Rs. 45 crore, this project would bring in the know-how of

high volume production of 150 mm and 200 mm SiC wafers. SiCSem Private Limited plans to establish a SiC process fabrication and ATMP plant in Odisha. This will help India to become self-sufficient in power semiconductor devices for advanced technologies such as electric vehicles (EVs), fast chargers, green energy, PV inverters, motor controls, and beyond 5G communication. Prof. Shreepad Karmalkar, Director of IIT Bhubaneswar

and an expert in semiconductor devices, said that this collaboration will promote innovation and self-reliance in SiC crystal growth, and represents a major industry-academia partnership for IIT Bhubaneswar. The collaboration will contribute significantly to the development of the semiconductor ecosystem in Odisha and the nation's semiconductor industry, in line with India Semiconductor Mission, Make in India and Atmanirbhar Bharat initiatives.



# भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर

## Indian Institute of Technology Bhubaneswar

Media/Publication	The Samaja		
Date	16 <sup>th</sup> June, 2024	Language	Odia
Headline	IIT Bhubaneswar to build Semiconductor Ecosystem		

### ଆଇଆଇଟିରେ ସେମିକଣ୍ଡକ୍ଟର ଇକୋସିଷ୍ଟମ ନିର୍ମାଣ ହେବ

କଟକ, ୧୫ଜୁନ(ନି.ପ୍ର): କମ୍ପ୍ୟୁଟର ଉପରେ ଆଧାରିତ ଅନୁଷ୍ଠାନ ନିମନ୍ତେ ସହଯୋଗ କରିବାକୁ ସିକ୍ସମ ପ୍ରାଇଭେଟ ଲିମିଟେଡ୍ ଏବଂ ଆଇଆଇଟି ଭୁବନେଶ୍ୱର ମଧ୍ୟରେ ଚୁକ୍ତିପତ୍ର ସ୍ୱାକ୍ଷରିତ ହୋଇଛି । ଏହି ଚୁକ୍ତିନାମାରେ ଆଇଆଇଟିର ଉଦ୍ଦେଶ୍ୟ ହେଉଛି ଉତ୍କଳ ସାହିତ୍ୟ ପ୍ରତିଷ୍ଠାନ ପ୍ରଭୃତି ଆଇଆଇଟି ଭୁବନେଶ୍ୱରରେ ସିଲିକନ୍ ଇଣ୍ଡସ୍ଟ୍ରି ପ୍ରତିଷ୍ଠା କରିବାକୁ ଉତ୍ସାହୀ କରିବା ଓ ଆଇଆଇଟିର ୪୫ ବର୍ଷର ଇତିହାସ ଓ ଅନୁଷ୍ଠାନ ପ୍ରସ୍ତୁତ ହୋଇଛି । ଏହି ପ୍ରକଳ୍ପ ୧୫୦ ମିଲିମିଟର ଏବଂ ୨୦୦ ମିଲିମିଟର ସିସି ଆପର ଉତ୍ପାଦନ ବିଷୟରେ ଅନୁଷ୍ଠାନ କରିବ ବୋଲି ଜଣାପଡ଼ିଛି । ଓଡ଼ିଶାରେ ସିକ୍ସମ ପ୍ରାଇଭେଟ ଲିମିଟେଡ୍ ଏବଂ ସିସି ପ୍ରୋସେସ୍ ପ୍ୟାକ୍ଟିକେସନ ଏବଂ ଏସିଏମପି ପ୍ରାଣ ପ୍ରତିଷ୍ଠା କରିବାକୁ ଯୋଜନା କରିଛି । ଏହା ଲେଉଟିଙ୍ଗ ଯାନ, ପାଞ୍ଜି ତାଳର, ସରୁ ଶୁକ୍ଳ ପିପି ଇନଜିନ, ମୋଟର କଣ୍ଟ୍ରୋଲ ଏବଂ ୫-୬ ପରି ଉଚ୍ଚତା ଜ୍ଞାନ ଶିକ୍ଷଣ ପାଇଁ ପାଖାପାଖି ସେମି କଣ୍ଡକ୍ଟର ଉପକରଣ ନିର୍ମାଣରେ ଆନୁଷ୍ଠାନିକ କରିବାରେ ସହଯୋଗ କରିବ । ଆଇଆଇଟିର ନିର୍ଦ୍ଦେଶକ ଡ.ଏ. ସେମି କଣ୍ଡକ୍ଟର ଉପକରଣ ବିଶେଷଜ୍ଞ ପ୍ରଫେସର ଶ୍ରୀପଦ କର୍ମାକରଙ୍କ ଯୋଗ ଦେଇ ସିସି ପ୍ରତିଷ୍ଠା ଆଇଆଇଟିରେ ନବମୂଳନ ଏବଂ ଆମ୍ଭ ନିର୍ମାଣଶାଳାକୁ ପ୍ରୋତ୍ସାହିତ କରିବ ବୋଲି କହିଥିଲେ ।

ଆଇଆଇଟି ଭୁବନେଶ୍ୱର ପାଇଁ ଏକ ପ୍ରମୁଖ ଶିଳ୍ପ ଏକାଡ଼େମୀ ଗଠିତାଗାକୁ ପ୍ରତିନିଧିତ୍ୱ କରିବ । ଏହାର ମୁଖ୍ୟ ଲକ୍ଷ୍ୟ ହେଉଛି ଉତ୍କଳ ସାହିତ୍ୟ ପ୍ରତିଷ୍ଠାନ ପ୍ରଭୃତି ଆଇଆଇଟି ଭୁବନେଶ୍ୱର ଉପକରଣ ନିର୍ମାଣରେ ଆନୁଷ୍ଠାନିକ କରିବାରେ ସହଯୋଗ କରିବା । ଆଇଆଇଟିର ନିର୍ଦ୍ଦେଶକ ଡ.ଏ. ସେମି କଣ୍ଡକ୍ଟର ଉପକରଣ ବିଶେଷଜ୍ଞ ପ୍ରଫେସର ଶ୍ରୀପଦ କର୍ମାକରଙ୍କ ଯୋଗ ଦେଇ ସିସି ପ୍ରତିଷ୍ଠା ଆଇଆଇଟିରେ ନବମୂଳନ ଏବଂ ଆମ୍ଭ ନିର୍ମାଣଶାଳାକୁ ପ୍ରୋତ୍ସାହିତ କରିବ ବୋଲି କହିଥିଲେ ।





# भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर

## Indian Institute of Technology Bhubaneswar

Media/Publication	The Sambad		
Date	17 <sup>th</sup> June, 2024	Language	Odia
Headline	MoU signed for building ecosystem for compound semiconductors in India		

## ଭାରତରେ କମ୍ପାଉଣ୍ଡ ସେମିକଣ୍ଡକ୍ଟର ଇକୋସିଷ୍ଟମ୍ ନିର୍ମାଣ ପାଇଁ ଚୁକ୍ତି ସ୍ୱାକ୍ଷର

କଟକ, ୧୭/୬(ଇମିସ): କମ୍ପାଉଣ୍ଡ ସେମିକଣ୍ଡକ୍ଟର କ୍ଷେତ୍ରରେ ଅନୁସନ୍ଧାନ ଲାଗି ସହଯୋଗ କରିବାକୁ ସିସ୍କେମ୍ ପ୍ରାଇଭେଟ୍ ଲିମିଟେଡ୍ ଓ ଭାରତୀୟ ପ୍ରଯୁକ୍ତିବିଦ୍ୟା ପ୍ରତିଷ୍ଠାନ (ଆଇଆଇଟି) ପକ୍ଷରୁ ଏକ ଚୁକ୍ତି ସ୍ୱାକ୍ଷର ହୋଇଯାଇଛି। ଏହି ଚୁକ୍ତିନାମାର ଅଂଶ ଭାବରେ କାର୍ଯ୍ୟକାରୀ ହେବାକୁ ଥିବା ପ୍ରଥମ ପ୍ରକଳ୍ପ ଆଇଆଇଟିରେ ସିଲିକନ୍ କାର୍ବାଇଡ୍ (ସିସି) କ୍ରିଷ୍ଟାଲ୍ ଅଭିବୃଦ୍ଧି କରିବ। ୪୫ କୋଟି ଟଙ୍କା ବ୍ୟୟରେ ହେବାକୁ ଥିବା ଏହି ପ୍ରକଳ୍ପ ୧୫୦ ମିଲିମିଟର ଏବଂ ୨୦୦ ମିଲିମିଟର ସିସି ଡ୍ରାଫ୍ଟ ଉଚ୍ଚ ପରିମାଣର ଉତ୍ପାଦନ ଉପରେ ଅନୁସନ୍ଧାନ କରିବ। ସିସ୍କେମ୍ ପ୍ରାଇଭେଟ୍ ଲିମିଟେଡ୍ ଓଡ଼ିଶାରେ ଏକ ସିସି ପ୍ରୋସେସ୍ ଫ୍ୟାକ୍ଟିକେସନ୍ ଏବଂ ଏଟିଏମ୍ପି ପ୍ଲାଣ୍ଟ ପ୍ରତିଷ୍ଠା କରିବାକୁ ଯୋଜନା କରିଛି। ଏହା ବୈଦ୍ୟୁତିକ ଯାନ (ଇଭି), ଫାଷ୍ଟ ଚାର୍ଜର, ସବୁଜ ଶକ୍ତି, ପିଭି ଇନ୍‌ଭର୍ଟର, ମୋଟର କଣ୍ଟ୍ରୋଲ୍ ଏବଂ ଟିଜି ଯୋଗାଯୋଗ ପରି ଉନ୍ନତ ଜ୍ଞାନକୌଶଳ ପାଇଁ ପାୱାର ସେମିକଣ୍ଡକ୍ଟର ଉପକରଣ ନିର୍ମାଣରେ ଭାରତକୁ ଆତ୍ମନିର୍ଭରଶୀଳ କରିବାରେ ସାହାଯ୍ୟ କରିବ। ଏହି ଅବସରରେ ଆଇଆଇଟିର ନିର୍ଦ୍ଦେଶକ ତଥା ସେମିକଣ୍ଡକ୍ଟର ଉପକରଣଗୁଡ଼ିକର ବିଶେଷଜ୍ଞ ପ୍ରଫେସର ଶ୍ରୀପଦ୍ କରମଲ୍ଲିକର କହିଛନ୍ତି ଯେ ଏହି ସହଯୋଗ ସିସି କ୍ରିଷ୍ଟାଲ୍ ଅଭିବୃଦ୍ଧିରେ ନବସୃଜନ ଏବଂ ଆତ୍ମନିର୍ଭରଶୀଳତାକୁ ପ୍ରୋତ୍ସାହିତ କରିବ। ଆଇଆଇଟି ପାଇଁ ଏକ ପ୍ରମୁଖ ଶିଳ୍ପ ଏକାଡେମୀ ଭାଗିଦାରୀକୁ ମଧ୍ୟ ପ୍ରତିନିଧିତ୍ୱ କରିବ। ଏହି ସହଯୋଗ ଭାରତରେ ସେମିକଣ୍ଡକ୍ଟର ଇକୋସିଷ୍ଟମ୍ ବିକାଶ ତଥା ଦେଶର ସେମିକଣ୍ଡକ୍ଟର ଶିଳ୍ପର ବିକାଶରେ ଯଥେଷ୍ଟ ସହାୟକ ହେବ, ଯାହାକି ଇଣ୍ଡିଆ ସେମିକଣ୍ଡକ୍ଟର ମିସନ୍, ମେକ୍ ଇନ୍ ଇଣ୍ଡିଆ ଏବଂ ଆତ୍ମନିର୍ଭର ଭାରତ ପଦକ୍ଷେପ ଉପରେ ହିଁ ଆଧାରିତ ଅଟେ।



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କମ୍ପାଉଣ୍ଡ ସେମି କଣ୍ଡକ୍ଟର ଇକୋ ସିଷ୍ଟମ ନିର୍ମାଣ ପାଇଁ

## ଆଇଆଇଟି-ସିକ୍ସସେମ୍ ରୁକ୍ଷିନାମା

କଟକ 1, ୧୬.୬ (ଆପ୍): କମ୍ପାଉଣ୍ଡ ସେମି କଣ୍ଡକ୍ଟର କ୍ଷେତ୍ରରେ ମିଳିତ ସହଯୋଗରେ ଅନୁସନ୍ଧାନ କରିବା ପାଇଁ ଜଟଣୀୟ ଭାରତୀୟ ପ୍ରଯୁକ୍ତି ବିଦ୍ୟା ପ୍ରତିଷ୍ଠାନ (ଆଇଆଇଟି) ଓ ସିକ୍ସସେମ୍ ପ୍ରାଇଭେଟ୍ ଲିମିଟେଡ୍ ରୁକ୍ଷିନାମା ସ୍ୱାକ୍ଷରିତ କରିଛନ୍ତି । ରୁକ୍ଷିନାମା ଅନୁଯାୟୀ ଏହି ଆଇଆଇଟିରେ ସିଲିକନ୍ କାର୍ବାଇଡ୍ କ୍ରିଷ୍ଟାଲର ସ୍ୱଦେଶୀ ବିକାଶ କରିବା ପ୍ରମୁଖ ଲକ୍ଷ୍ୟ ରହିଛି । ଏହି ପ୍ରକଳ୍ପ ୪୫ କୋଟି ଟଙ୍କା ବ୍ୟୟ ଅଟକଳରେ ୧୫୦ ମିଲିମିଟର ଓ ୨୦୦ ମିଲିମିଟର ସିସି

ଡ୍ୱାଫର ଉଚ୍ଚ ପରିମାଣର ଉତ୍ପାଦନ ଉପରେ ଅନୁଧ୍ୟାନ କରିବ । ସିକ୍ସସେମ୍ ପ୍ରାଇଭେଟ୍ ଲିମିଟେଡ୍ ଓଡ଼ିଶାରେ ଏକ ସିସି ପ୍ରୋସେସ୍ ଫାବ୍ରିକେସନ୍ ଓ ଏଟିଏମ୍ ପ୍ୟାକ୍ ପ୍ରତିଷ୍ଠା କରିବା ଯୋଜନା କରିଛି । ଏଥିରେ ବୈଦ୍ୟୁତିକ ଯାନ, ଫାଷ୍ଟ ଚାର୍ଜର, ସବୁଜ ଶକ୍ତି, ପିଭି କନ୍ଭର୍ଟର, ମୋଟର କଂଟ୍ରୋଲ ଓ ୫ଜି ସଂଚାର ପରି ଉନ୍ନତ ଜ୍ଞାନ କୌଶଳର ପାଞ୍ଜିର ସେମି କଣ୍ଡକ୍ଟର ନିର୍ମାଣରେ ଭାରତକୁ ଆତ୍ମ ନିର୍ଭରଶୀଳ କରିବାରେ ପ୍ରମୁଖ ଭୂମିକା ଗ୍ରହଣ

କରିବ । ଏହି ଅବସରରେ ଆଇଆଇଟି ନିର୍ଦ୍ଦେଶକ ତଥା ସେମି କଣ୍ଡକ୍ଟର ଉପକରଣର ବିଶେଷଜ୍ଞ ପ୍ରଫେସର ଶ୍ରୀପଦ କରମଲକର କହିଛନ୍ତି ଏହା ସିସି କ୍ରିଷ୍ଟାଲ ଅଭିବୃଦ୍ଧିରେ ନବଯୁଗ ଓ ଆତ୍ମନିର୍ଭରଶୀଳତାକୁ ପ୍ରୋତ୍ସାହିତ କରିବା ସହ ଆଇଆଇଟି ପାଇଁ ପ୍ରମୁଖ ଶିଳ୍ପ-ଏକାଡେମୀ ଭାଗୀଦାରୀକୁ ପ୍ରତିନିଧିତ୍ୱ କରିବ । ଏହା ଭାରତରେ ସେମିକଣ୍ଡକ୍ଟର ଇକୋ ସିଷ୍ଟମର ବିକାଶ ତଥା ଦେଶର ସେମିକଣ୍ଡକ୍ଟର ଶିଳ୍ପର ବିକାଶରେ ଯଥେଷ୍ଟ ସହାୟକ ହେବ ବୋଲି କହିଥିଲେ ।





Media/Publication	The Pragativadi		
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## ● କମ୍ପାଉଣ୍ଡ ସେମିକଣ୍ଡକ୍ଟର ଇକୋସିଷ୍ଟମ୍

# ଆଇଆଇଟି ଭୁବନେଶ୍ୱର-ସିକ୍ସେମ୍ ସହଭାଗିତା

■ ଜଟଣୀ, ତା ୧୫.୬ (ପିଏନଏସ୍):

କମ୍ପାଉଣ୍ଡ ସେମିକଣ୍ଡକ୍ଟର କ୍ଷେତ୍ରରେ ଅନୁସନ୍ଧାନରେ ସହଯୋଗ କରିବାକୁ ସିକ୍ସେମ୍ ପ୍ରାଇଭେଟ ଲିମିଟେଡ୍ ଏବଂ ଭାରତୀୟ ପ୍ରଯୁକ୍ତିବିଦ୍ୟା ପ୍ରତିଷ୍ଠାନ (ଆଇଆଇଟି) ଭୁବନେଶ୍ୱର ଏକ ମେମୋରେଣ୍ଡମ୍ ଅଫ୍ ଆଣ୍ଡରଷ୍ଟାଣ୍ଡିଂ ସ୍ୱାକ୍ଷର କରିଛନ୍ତି । ଏହି ଚୁକ୍ତିନାମାରେ ଅଂଶ ଭାବରେ କାର୍ଯ୍ୟକାରୀ ହେବାକୁ ଥିବା ପ୍ରଥମ ପ୍ରକଳ୍ପ ଆଇଆଇଟି ଭୁବନେଶ୍ୱର ସିଲିକନ୍ କାର୍ବାଇଡ୍ (ସିସି) କ୍ରିଷ୍ଟାଲ ଅଭିବୃଦ୍ଧିକୁ ସ୍ୱତନ୍ତ୍ର କରିବ । ଆନୁମାନିକ ମୂଲ୍ୟ ୪୫ କୋଟି ଟଙ୍କା ବ୍ୟୟ ଆକଳିତ ଏହି ପ୍ରକଳ୍ପ ୧୫୦ ମିଲିମିଟର ଏବଂ ୨୦୦ ମିଲିମିଟର ସିସି ଡ୍ରାଫ୍ଟ ଉଚ୍ଚ ପରିମାଣର ଉତ୍ପାଦନ ବିଷୟରେ ଅନୁସନ୍ଧାନ କରିବ । ସିକ୍ସେମ୍ ପ୍ରାଇଭେଟ ଲିମିଟେଡ୍ ଓଡ଼ିଶାରେ ଏକ ସିସି ପ୍ରୋସେସ୍ ପ୍ୟାକ୍ଟିକେସନ ଏବଂ ଏଟିଏମ୍ ପ୍ଲାଟ୍ ପ୍ରତିଷ୍ଠା କରିବାକୁ ଯୋଜନା କରିଛି । ଏହା ବୈଦ୍ୟୁତିକ ଯାନ (ଇଭି), ପାୱାର୍ ଚାର୍ଜର, ସବୁଜ

ଶକ୍ତି, ପିଭିଇନଭର୍ଟର, ମୋଟର କଣ୍ଟ୍ରୋଲ ଏବଂ ଫିଲିପ୍ସ ଯୋଗାଯୋଗ ପରି ଉନ୍ନତ ଜ୍ଞାନକୌଶଳ ପାଇଁ ପାୱାର୍ ସେମିକଣ୍ଡକ୍ଟର ଉପକରଣ ନିର୍ମାଣରେ ଭାରତକୁ ଆତ୍ମନିର୍ଭରଶୀଳ କରିବାରେ ସାହାଯ୍ୟ କରିବ । ଆଇଆଇଟି ଭୁବନେଶ୍ୱର ନିର୍ଦ୍ଦେଶକ ତଥା ସେମିକଣ୍ଡକ୍ଟର ଉପକରଣଗୁଡ଼ିକ ବିଶେଷଜ୍ଞ ପ୍ରଫେସର ଶ୍ରୀପଦ କରମଲକର କହିଛନ୍ତି ଯେ ଏହି ସହଯୋଗ ସିସି କ୍ରିଷ୍ଟାଲ ଅଭିବୃଦ୍ଧିରେ ନବସୃଜନ ଏବଂ ଆତ୍ମନିର୍ଭରଶୀଳତାକୁ ପ୍ରୋତ୍ସାହିତ କରିବ ଏବଂ ଆଇଆଇଟି ଭୁବନେଶ୍ୱର ପାଇଁ ଏକ ପ୍ରମୁଖ ଶିଳ୍ପ-ଏକାଡେମୀ ଭାଗିଦାରୀକୁ ପ୍ରତିନିଧିତ୍ୱ କରିବ । ଏହି ସହଯୋଗ ଭାରତରେ ସେମିକଣ୍ଡକ୍ଟର ଇକୋସିଷ୍ଟମର ବିକାଶ ତଥା ଦେଶର ସେମିକଣ୍ଡକ୍ଟର ଶିଳ୍ପର ବିକାଶରେ ଯଥେଷ୍ଟ ସହାୟକ ହେବ, ଯାହା କି ଇଣ୍ଡିଆ ସେମିକଣ୍ଡକ୍ଟର ମିଶନ, ମେକ୍ ଇନ୍ ଇଣ୍ଡିଆ ଏବଂ ଆତ୍ମନିର୍ଭର ଭାରତ ପଦକ୍ଷେପ ଆଦିର ଧ୍ୟେୟ ଉପରେ ହିଁ ଆଧାରିତ ।



# भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर

## Indian Institute of Technology Bhubaneswar

Media/Publication	The Pratidin		
Date	16 <sup>th</sup> June, 2024	Language	Odia
Headline	IIT-SiCSem to collaborate for building ecosystem for compound semiconductor		

### ଭାରତରେ କମ୍ପାଉଣ୍ଡ ସେମିକଣ୍ଡକ୍ଟର ଇକୋସିଷ୍ଟମ ନିର୍ମାଣ ପାଇଁ ଆଇଆଇଟି ଭୁବନେଶ୍ୱରକୁ ସହଯୋଗ କରିବ ସିକ୍ସେମ ପ୍ରାଇଭେଟ ଲିମିଟେଡ୍

ଭୁବନେଶ୍ୱର, ୧୫।୬(ନି.ପ୍ର.): କମ୍ପାଉଣ୍ଡ ସେମିକଣ୍ଡକ୍ଟର ଶ୍ରେଣୀରେ ଅନୁସନ୍ଧାନରେ ସହଯୋଗ କରିବାକୁ ସିକ୍ସେମ ପ୍ରାଇଭେଟ ଲିମିଟେଡ୍ ଏବଂ ଭାରତୀୟ ପ୍ରଯୁକ୍ତିବିଦ୍ୟା ପ୍ରତିଷ୍ଠାନ (ଆଇଆଇଟି) ଭୁବନେଶ୍ୱର ଏକ ମେମୋରେଣ୍ଡମ ଅଫ୍ ଆଣ୍ଡରଷ୍ଟାଣ୍ଡିଂ ସ୍ୱାକ୍ଷର କରିଛନ୍ତି। ଏହି ଚୁକ୍ତିନାମାର ଅଂଶ ଭାବରେ କାର୍ଯ୍ୟକାରୀ ହେବାକୁ ଥିବା ପ୍ରଥମ ପ୍ରକଳ୍ପ ଆଇଆଇଟି ଭୁବନେଶ୍ୱରରେ ସିଲିକନ୍ କାର୍ବାଇଡ୍ (ସିସି) କ୍ରିଷ୍ଣାଳ ଅଭିବୃଦ୍ଧିକୁ ସୁଦେଶୀ କରିବା ଆନୁମାନିକ ମୂଲ୍ୟ ୪୫ କୋଟି ଟଙ୍କା ବ୍ୟୟ ଆବଦ୍ଧ ଏହି ପ୍ରକଳ୍ପ ୧୫୦ ମିଲିମିଟର ଏବଂ ୨୦୦ ମିଲିମିଟର ସିସି ଓପର୍ସର ଉଚ୍ଚ ପରିମାଣର ଉତ୍ପାଦନ ବିଷୟରେ ଅନୁସନ୍ଧାନ କରିବେ। ସିକ୍ସେମ ପ୍ରାଇଭେଟ ଲିମିଟେଡ୍ ଓଡ଼ିଶାରେ ଏକ ସିସି ପ୍ରୋସେସ୍ ଫ୍ୟାକ୍ଟିକେସ୍ ଏବଂ ଏଟିଏମପି ପ୍ଲାଣ୍ଟ ପ୍ରତିଷ୍ଠା କରିବାକୁ ଯୋଜନା କରିଛି। ଏହା ବୈଦ୍ୟୁତିକ ଯାନ (ଇଭି), ଫାଷ୍ଟ ଚାର୍ଜର, ସହଜ ଶକ୍ତି, ପିଭି

ଇନଭର୍ଟର, ମୋଟର କଣ୍ଟ୍ରୋଲ ଏବଂ ୫ଜି ଯୋଗାଯୋଗ ପରି ଉନ୍ନତ ଜ୍ଞାନକୌଶଳ ପାଇଁ ପାଣ୍ଡାର ସେମିକଣ୍ଡକ୍ଟର ଉପକରଣ ନିର୍ମାଣରେ ଭାରତକୁ ଆତ୍ମନିର୍ଭରଶୀଳ କରିବାରେ ସାହାଯ୍ୟ କରିବ। ଆଇଆଇଟି ଭୁବନେଶ୍ୱରର ନିର୍ଦ୍ଦେଶକ ତଥା ସେମିକଣ୍ଡକ୍ଟର ଉପକରଣଗୁଡ଼ିକର ବିଶେଷଜ୍ଞ ପ୍ରଫେସର ଶ୍ରୀପଦ୍ କରମଲକର କହିଛନ୍ତି ଯେ ଏହି ସହଯୋଗ ସିସି କ୍ରିଷ୍ଣାଳ ଅଭିବୃଦ୍ଧିରେ ନବସୃଜନ ଏବଂ ଆତ୍ମନିର୍ଭରଶୀଳତାକୁ ପ୍ରୋତ୍ସାହିତ କରିବ ଏବଂ ଆଇଆଇଟି ଭୁବନେଶ୍ୱର ପାଇଁ ଏକ ପ୍ରମୁଖ ଶିଳ୍ପ-ଏକାଡେମୀ ଭାଗିଦାରୀକୁ ପ୍ରତିନିଧିତ୍ୱ କରିବ। ଏହି ସହଯୋଗ ଭାରତରେ ସେମିକଣ୍ଡକ୍ଟର ଇକୋସିଷ୍ଟମର ବିକାଶ ତଥା ଦେଶର ସେମିକଣ୍ଡକ୍ଟର ଶିଳ୍ପର ବିକାଶରେ ଯଥେଷ୍ଟ ସହାୟକ ହେବ, ଯାହା କି ଇଣ୍ଡିଆ ସେମିକଣ୍ଡକ୍ଟର ନିଶନ, ମେକ୍ ଇନ୍ ଇଣ୍ଡିଆ ଏବଂ ଆତ୍ମନିର୍ଭର ଭାରତ ପଦକ୍ଷେପ ଆଦିର ଧ୍ୟେୟ ଉପରେ ହିଁ ଆଧାରିତ।



## भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर Indian Institute of Technology Bhubaneswar

Media/Publication	Azad Sipahi		
Date	16 <sup>th</sup> June, 2024	Language	Hindi
Headline	IIT-SiCSem to collaborate for building ecosystem for compound semiconductor		

### भारत में कंपाउंड सेमीकंडक्टर पारिस्थितिकी तंत्र के निर्माण के लिए आइआईटी भुवनेश्वर के साथ सहयोग करेगा सीआईसीएसइएम

#### आजाद सिपाही संवाददाता

**भुवनेश्वर।** भारतीय प्रौद्योगिकी संस्थान (आइआईटी) भुवनेश्वर और सीआईसीएसइएम प्राइवेट लिमिटेड ने कंपाउंड सेमीकंडक्टर्स के क्षेत्र में अनुसंधान पर सहयोग करने के लिए एक समझौता ज्ञापन पर हस्ताक्षर किए हैं। इस समझौते के तहत की जाने वाली पहली परियोजना आइआईटी भुवनेश्वर में सिलिकॉन कार्बाइड क्रिस्टल का स्वदेशी विकास होगा। रुपये की अनुमानित लागत के साथ। 45 करोड़ रुपये की लागत वाली यह

परियोजना 150 मिमी और 200 मिमी 3D वेफर्स के उच्च मात्रा में उत्पादन की जानकारी लायेगी। प्राइवेट लिमिटेड ने ओडिशा में प्रक्रिया निर्माण और एटीएमपी संयंत्र स्थापित करने की योजना बनायी है। इससे भारत को इलेक्ट्रिक वाहन (ईवी), फास्ट चार्जर, हरित ऊर्जा, पीवी इनवर्टर, मोटर नियंत्रण और 5जी संचार से परे उन्नत प्रौद्योगिकियों के लिए पावर सेमीकंडक्टर उपकरणों में आत्मनिर्भर बनने में मदद मिलेगी। आइआईटी भुवनेश्वर के निदेशक

और सेमीकंडक्टर उपकरणों के विशेषज्ञ प्रोफेसर श्रीपाद कर्मलकर ने कहा कि यह सहयोग क्रिस्टल विकास में नवाचार और आत्मनिर्भरता को बढ़ावा देगा, और आइआईटी भुवनेश्वर के लिए एक प्रमुख उद्योग-अकादमिक साझेदारी का प्रतिनिधित्व करता है। यह सहयोग भारत सेमीकंडक्टर मिशन, मेक इन इंडिया और आत्मनिर्भर भारत पहल के अनुरूप ओडिशा में सेमीकंडक्टर पारिस्थितिकी तंत्र और देश के सेमीकंडक्टर उद्योग के विकास में महत्वपूर्ण योगदान देगा।



# भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर Indian Institute of Technology Bhubaneswar

Media/Publication	IBG News.com		
Date	15 <sup>th</sup> June, 2024	Language	English
Headline	IIT-SiCSem to collaborate for building ecosystem for compound semiconductor		
Link	<a href="https://ibgnews.com/2024/06/15/sicsem-to-collaborate-with-iit-bhubaneswar-for-building-the-compound-semiconductor-ecosystem-in-india/">https://ibgnews.com/2024/06/15/sicsem-to-collaborate-with-iit-bhubaneswar-for-building-the-compound-semiconductor-ecosystem-in-india/</a>		

## SiCSem to collaborate with IIT Bhubaneswar for building the Compound Semiconductor ecosystem in India

₹36.79 ▼

By Editor Desk - June 15, 2024 9:27 pm

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## भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर Indian Institute of Technology Bhubaneswar

### **SiCSem to collaborate with IIT Bhubaneswar for building the Compound Semiconductor ecosystem in India**

**Bhubaneswar, 15<sup>th</sup> June 2024:** SiCSem Private Limited and the Indian Institute of Technology Bhubaneswar (IIT) Bhubaneswar signed a Memorandum of Agreement to collaborate on research in the field of Compound Semiconductors. The first project to be carried out as part of this agreement would indigenize Silicon Carbide (SiC) crystal growth at IIT Bhubaneswar. Estimated to cost Rs. 45 crore, this project would bring in the know-how of high volume production of 150 mm and 200 mm SiC wafers. SiCSem Private Limited plans to establish a SiC process fabrication and ATMP plant in Odisha. This will help India to become self-sufficient in power semiconductor devices for advanced technologies such as electric vehicles (EVs), fast chargers, green energy, PV inverters, motor controls, and beyond 5G communication.

Prof. Shreepad Karmalkar, Director of IIT Bhubaneswar and an expert in semiconductor devices, said that this collaboration will promote innovation and self-reliance in SiC crystal growth, and represents a major industry-academia partnership for IIT Bhubaneswar. The collaboration will contribute significantly to the development of the semiconductor ecosystem in Odisha and the nation's semiconductor industry, in line with India Semiconductor Mission, Make in India and Atmanirbhar Bharat initiatives.



भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर  
Indian Institute of Technology Bhubaneswar

Media/Publication	Kalinga Voice.com		
Date	15 <sup>th</sup> June, 2024	Language	English
Headline	SiCSem To Collaborate With IIT Bhubaneswar For Building The Compound Semiconductor Ecosystem In India		
Link	<a href="https://kalingavoice.com/odisha/sicsem-to-collaborate-with-iit-bhubaneswar-for-building-the-compound-semiconductor-ecosystem-in-india/">https://kalingavoice.com/odisha/sicsem-to-collaborate-with-iit-bhubaneswar-for-building-the-compound-semiconductor-ecosystem-in-india/</a>		

SiCSem Private Limited and the Indian Institute of Technology Bhubaneswar (IIT) Bhubaneswar signed a Memorandum of Agreement to collaborate on research in the field of Compound Semiconductors. The first project to be carried out as part of this agreement would indigenize Silicon Carbide (SiC) crystal growth at IIT Bhubaneswar. Estimated to cost Rs. 45 crore, this project would bring in the know-how of high volume production of 150 mm and 200 mm SiC wafers. SiCSem Private Limited plans to establish a SiC process fabrication and ATMP plant in Odisha. This will help India to become self-sufficient in power semiconductor devices for advanced technologies such as electric vehicles (EVs), fast chargers, green energy, PV inverters, motor controls, and beyond 5G communication.

Prof. Shreepad Karmalkar, Director of IIT Bhubaneswar and an expert in semiconductor devices, said that this collaboration will promote innovation and self-reliance in SiC crystal growth, and represents a major industry-academia partnership for IIT Bhubaneswar. The collaboration will contribute significantly to the development of the semiconductor ecosystem in Odisha and the nation's semiconductor industry, in line with India Semiconductor Mission, Make in India and Atmanirbhar Bharat initiatives.





# भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर

## Indian Institute of Technology Bhubaneswar

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ଭାରତରେ କମ୍ପାଉଣ୍ଡ ସେମିକଣ୍ଡକ୍ଚର ଇକୋସିଷ୍ଟମ ନିର୍ମାଣ ପାଇଁ ଆଇଆଇଟି ଭୁବନେଶ୍ୱର ସହିତ ସହଯୋଗ କରିବ ସିକ୍ସେମପ୍ରାଇଭେଟ ଲିମିଟେଡ୍

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ଭୁବନେଶ୍ୱର, ୧୫ ଜୁନ୍ ୨୦୨୪: କମ୍ପାଉଣ୍ଡ ସେମିକଣ୍ଡକ୍ଚର କ୍ଷେତ୍ରରେ ଅନୁସନ୍ଧାନରେ ସହଯୋଗ କରିବାକୁ ସିକ୍ସେମ ପ୍ରାଇଭେଟ ଲିମିଟେଡ୍ ଏବଂ ଭାରତୀୟ ପ୍ରଯୁକ୍ତିବିଦ୍ୟା ପ୍ରତିଷ୍ଠାନ (ଆଇଆଇଟି) ଭୁବନେଶ୍ୱର ଏକ ମେମୋରେଣ୍ଡମ୍ ଅଫ୍ ଆଣ୍ଡରଷ୍ଟାଣ୍ଡିଂ ସ୍ୱାକ୍ଷର କରିଛନ୍ତି। ଏହି ଦୁଇନାମାର ଅଂଶ ଭାବରେ କାର୍ଯ୍ୟକାରୀ ହେବାକୁ ଥିବା ପ୍ରଥମ ପ୍ରକଳ୍ପ ଆଇଆଇଟି ଭୁବନେଶ୍ୱରରେ ସିଲିକନ୍ କାର୍ବାଇଡ୍ (ସିସି) କ୍ରିଷ୍ଟାଲ ଅଭିବୃଦ୍ଧିକୁ ସ୍ୱଦେଶୀ କରିବା ଆନୁମାନିକ ମୂଲ୍ୟ ୪୫ କୋଟି ଟଙ୍କା ବ୍ୟୟ ଆକଳିତ ଏହି ପ୍ରକଳ୍ପ ୧୫୦ ମିଲିମିଟର ଏବଂ ୨୦୦ ମିଲିମିଟର ସିସି ଖାଫର୍ ର ଉଚ୍ଚ ପରିମାଣର ଉତ୍ପାଦନ ବିଷୟରେ ଅନୁସନ୍ଧାନ କରିବ। ସିକ୍ସେମ ପ୍ରାଇଭେଟ ଲିମିଟେଡ୍ ଓଡ଼ିଶାରେ ଏକ ସିସି ପ୍ରୋସେସ୍ ଫ୍ୟାକ୍ଟ୍ରିକେସନ୍ ଏବଂ ଏଟିଏମପି ପ୍ଲାଣ୍ଟ ପ୍ରତିଷ୍ଠା କରିବାକୁ ଯୋଜନା କରିଛି। ଏହା ବୈଦ୍ୟୁତିକ ଯାନ (ଇଭି), ଫାଷ୍ଟ ଚାର୍ଜର, ସବୁଜ ଶକ୍ତି, ପିଭି ଇନଭର୍ଟର, ମୋଟର କଣ୍ଟ୍ରୋଲ ଏବଂ 5G ଯୋଗାଯୋଗ ପରି ଉଚ୍ଚତ ଜ୍ଞାନକୌଶଳ ପାଇଁ ପାୱାର ସେମିକଣ୍ଡକ୍ଚର ଉପକରଣ ନିର୍ମାଣରେ ଭାରତକୁ ଆତ୍ମନିର୍ଭରଶୀଳ କରିବାରେ ସାହାଯ୍ୟ କରିବ।

ଆଇଆଇଟି ଭୁବନେଶ୍ୱରର ନିର୍ଦ୍ଦେଶକ ତଥା ସେମିକଣ୍ଡକ୍ଚର ଉପକରଣଗୁଡ଼ିକର ବିଶେଷଜ୍ଞ ପ୍ରଫେସର ଶ୍ରୀପଦ୍ କରମଲକର କହିଛନ୍ତି ଯେ ଏହି ସହଯୋଗ ସିସି କ୍ରିଷ୍ଟାଲ ଅଭିବୃଦ୍ଧିରେ ନବଯୁଗ ଏବଂ ଆତ୍ମନିର୍ଭରଶୀଳତାକୁ ପ୍ରୋତ୍ସାହିତ କରିବ ଏବଂ ଆଇଆଇଟି ଭୁବନେଶ୍ୱର ପାଇଁ ଏକ ପ୍ରମୁଖ ଶିଳ୍ପ-ଏକାଡେମୀ ଭାରିଡାରାକୁ ପ୍ରତିନିଧିତ୍ୱ କରିବ। ଏହି ସହଯୋଗ ଭାରତରେ ସେମିକଣ୍ଡକ୍ଚର ଇକୋସିଷ୍ଟମର ବିକାଶ ତଥା ଦେଶର ସେମିକଣ୍ଡକ୍ଚର ଶିଳ୍ପର ବିକାଶରେ ଯଥେଷ୍ଟ ସହାୟକ ହେବ, ଯାହା କି ଇଣ୍ଡିଆ ସେମିକଣ୍ଡକ୍ଚର ମିଶନ, ମେକ୍ ଇନ୍ ଇଣ୍ଡିଆ ଏବଂ ଆତ୍ମନିର୍ଭର ଭାରତ ପଦକ୍ଷେପ ଆଦିର ଧ୍ୟେୟ ଉପରେ ହିଁ ଆଧାରିତ।