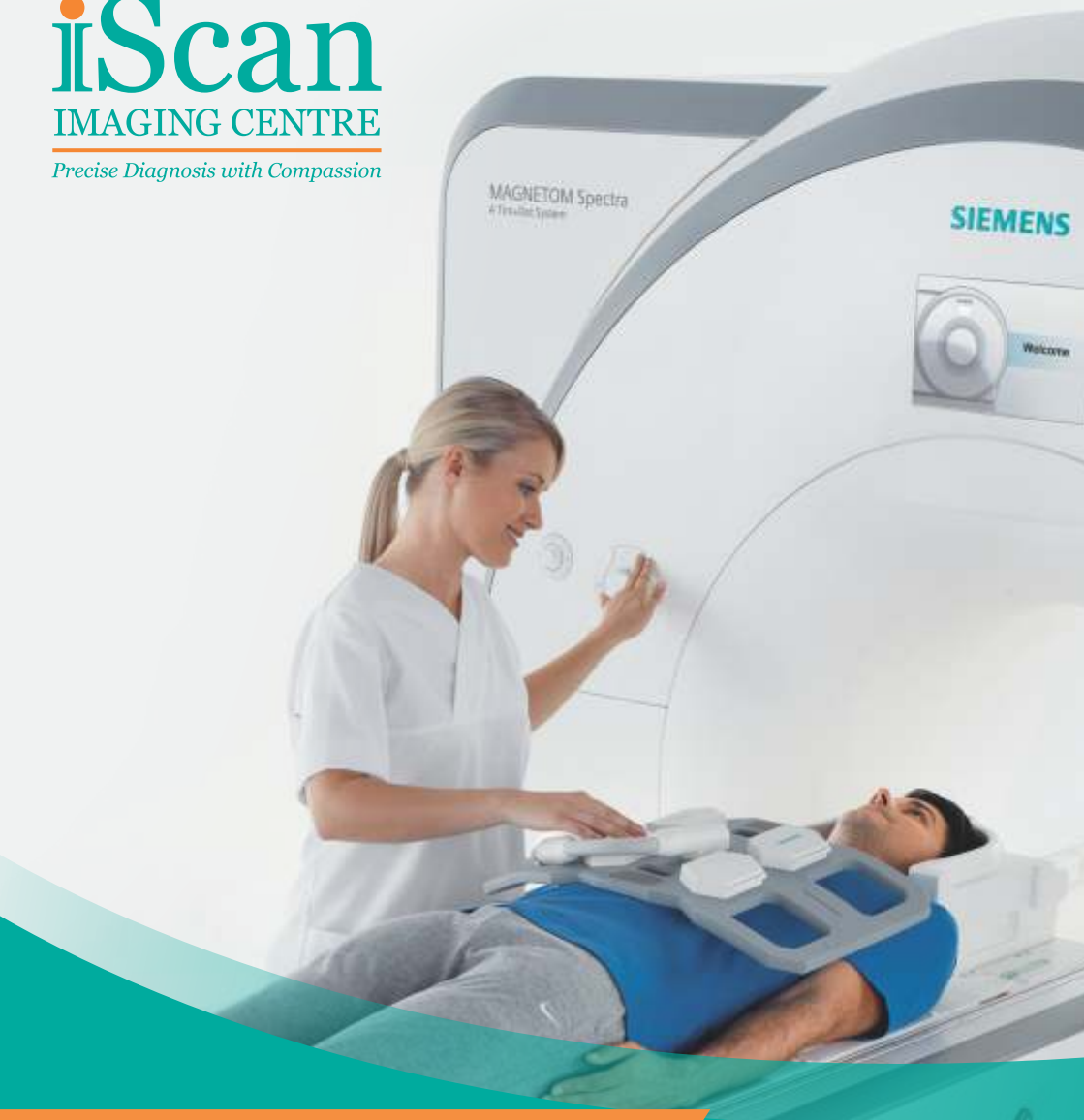


# iScan

## IMAGING CENTRE

*Precise Diagnosis with Compassion*



### 3T MRI

The key to accurate diagnosis

Mumbai's First **3Tesla MRI- Magnetom Spectra**

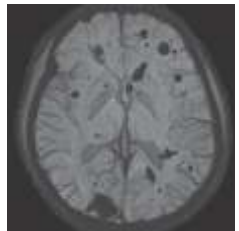
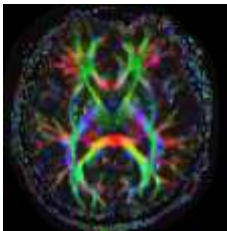
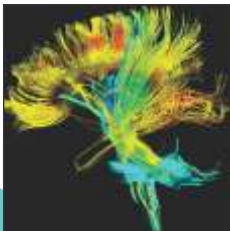
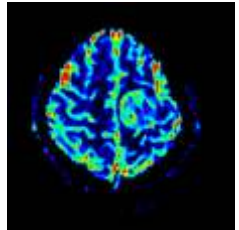
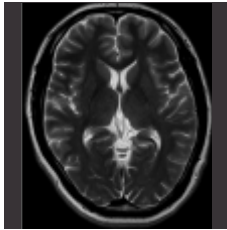
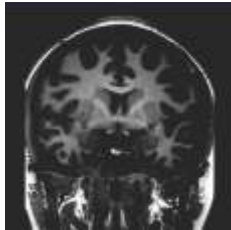
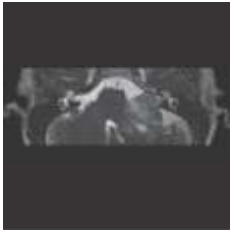
# Magnetom Spectra

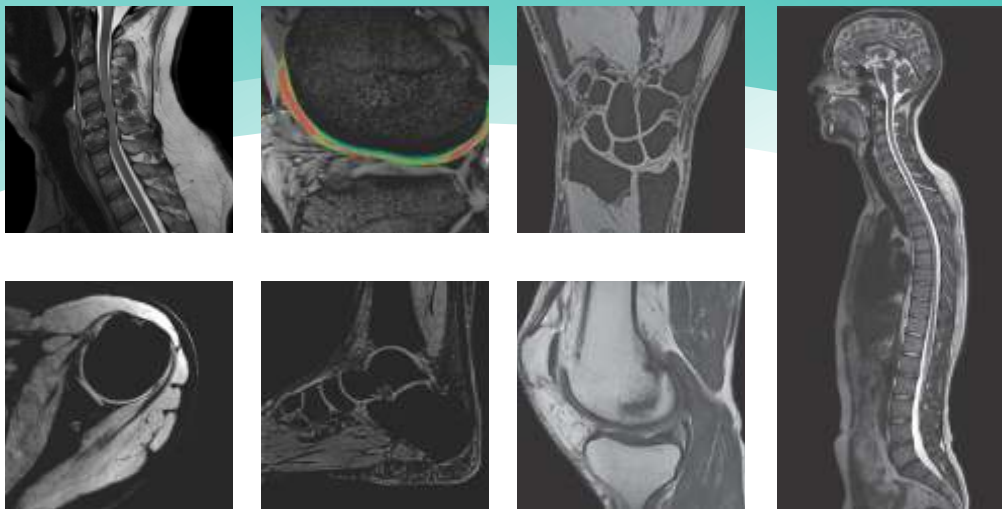
Latest world class high-field MRI system offers a unique combination of -

- **3 Tesla MRI**  
High magnetic field to provide highest homogeneity for excellent image quality
- **24 Channel**  
For faster imaging
- **Tim 4G coil technology**  
Siemens' latest 4th generation RF technology that unlocks a new level of imaging accuracy and flexibility
- **TimTX TrueForm**  
Innovative techniques in the RF excitation and uniform RF distribution in all body regions for high image quality, faster speed and excellent clinical performance
- **DirectRF**  
RF transmit and receive component attached with magnet for higher SNR, lesser noise and high signal purity
- **TrueForm magnet**  
Unique design of the magnet ensures excellent image quality even at the edges of the large field of view scans
- **Dot (Day Optimized Throughput) engines**  
Consistent, individualized and reproducible clinical information even in complicated exams of any body part
- **Powerful Gradient** – Excellent image quality
- **High end Ultra lightweight dedicated high-density coils** –  
Enhanced patient comfort
- **BLADE**  
Advanced software for real time motion correction for all body regions and all orientations; very useful in uncooperative, apprehensive and pediatric patients.
- **Salient features of 3T MRI**
  - MRI on 3 Tesla is twice as fast as 1.5T - Shorter exam times -  
Greater patient comfort
  - High signal-to-noise ratio provides excellent resolution - Improved  
diagnostic sensitivity and specificity
  - Excellent contrast-enhanced T1 imaging - Increased accuracy

## 3T Neuro Imaging

- Extremely short scan times allows applying advanced imaging techniques in routine scan times
- Routine MR Brain can be performed in a patient from intensive care or a child in upto 7 minutes
- Diffusion images sensitivity is enhances with excellent 32-direction Diffusion Tensor Imaging (DTI) and Tractography
- Sensitivity and specificity of Perfusion imaging (PWI) is vastly improved
- MR Spectroscopy is one of the key applications on 3T magnets with better defined metabolic peaks, larger 3D coverage and faster acquisition
- Increased susceptibility in 3T MRI drastically improves the quality of susceptibility - weighted imaging (SWI), aiding acute stroke workup to demonstrate areas of hypoperfusion similar to PWI besides hemorrhagic stroke, which is very critical in deciding thrombolytic therapy.
- Contrast-enhanced 3T imaging shows detection of more enhancing MS plaques and improves visualization of pituitary macro and microadenomas
- 3D Space sequences on 3T are extremely fast and can cover the entire brain with isotropic resolution and higher matrix.





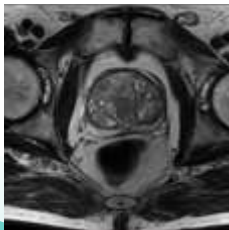
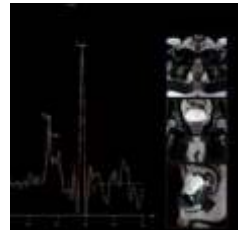
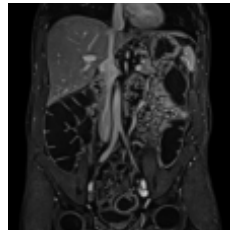
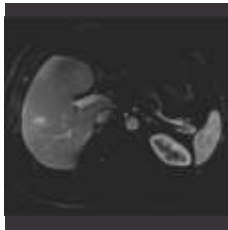
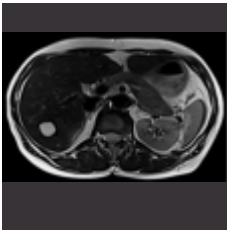
## 3T Orthopedic Imaging

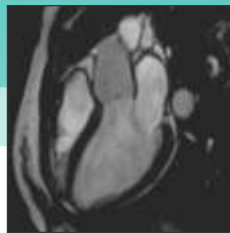
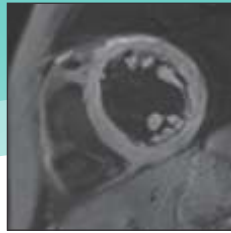
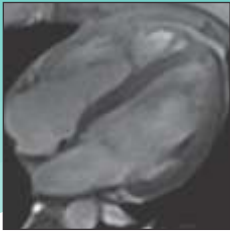
3T MR has revolutionized Orthopedic imaging provides double the inplane resolution and upto 4 times the speed on multiple-average scans.

- Integrated 24-channel Spine, 18-channel knee, two 16-channel shoulder & 4 - channel small & large Flex coils are iPAT-compatible.
- Extremely high-resolution images in small FOV with excellent fat suppression improving patient comfort and throughput
- The excellent homogeneity and contrast even in routine scans, vastly improves the diagnostic confidence; the routine scans being possible in about 10 min
- Improved resolution aids better visualization of the articular cartilage of the hip/ acetabulum, talar dome and the wrist and small structures like labrum, TFCC, nerves and tiny ligaments
- Cartilage MapIT allows the early detection of osteoarthritis and cartilage transplant evaluation.
- Excellent post-implant imaging with reduced artifacts.
- High resolution isotropic imaging with Multi-contrast SPACE sequence
- Dynamic high-resolution Temporo-mandibular joint imaging

## 3T Body imaging

- High resolution imaging combining two 8-channel body matrix coils and 24-channel Spine coil in chest/ abdomen/ pelvis
- Outstanding neck/ brachial plexus images with combination of 16 - Head/Neck coil with 24-Spine coil
- Liver Imaging on 3T is extremely fast and the improved spatial resolution helps in detection of small and ultra small lesions of the liver. Fast dynamic liver protocols with Inline motion correction for best visualization of focal lesions.
- MRCP is of unprecedented quality with much more detailed evaluation of the CBD, PD and the terminal ducts
- 3D isotropic multiplanar Pelvic imaging with sub-millimeter resolution, especially for evaluation of uterine & cervical pathologies
- The combined high spatial resolution Dynamic Contrast-Enhanced ,T2W and 3D spectroscopy MRI at 3T provides improved assessment and high staging accuracy of Prostate cancer
- Excellent homogeneity in any body region without any dielectric shading
- Free breathing protocols available for uncooperative patients.





3T Cardiac MRI



3T Breast MRI



3T Whole body MRI

## 3T Cardiac MRI

- Speed at 3T is particularly helpful in performing Cardiac MR and the most promising application is in myocardial perfusion and pediatric imaging.
- High-resolution fast imaging of cardiac morphology and accurate cardiac function evaluation with fast, single breath-hold using inline technology

## 3T Breast MRI

- 3Tesla is ideally suited to Breast MR because it has enough signal to use a higher imaging matrix and obtain contrast from lesions before normal breast tissue enhances in the early postcontrast phase
- High-resolution MR Spectroscopy through the lesion can also be performed

## 3T Whole body MRI

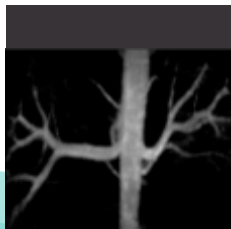
- Ultrafast thin high-resolution head-to-toe imaging can be performed in about 20 min, which is primarily a screening test, indicated in cases of Multiple Myeloma and Metastasis.

## 3T Pediatric Imaging

- The faster gradients of 3 Tesla MRI allow scanning times to be drastically shortened, which may eliminate the need of sedation even in uncooperative children or in sedated neonates in poor conditions
- Small FOV high-resolution images can be obtained with greater consistency
- Real time motion correction for all body regions – reduced sedation rates
- Various body-part and age-specific protocols for excellent contrast and resolution
- Protocols for cardiac morphology, ventricular function and septal defects

## 3T MR Angiography

- 3T MR Angiography superior even to digital subtraction angiography(DSA), especially for studying atherosclerotic disease and vascular malformations like aneurysms
- Excellent vessel depiction with various contrast and non contrast techniques
- Dynamic postcontrast TWIST imaging gives DSA-like multiphasic images every 2.5 sec
- Extremely high-resolution inflow MR angiography
- High-resolution Renal Angiography with or without contrast
- 3T MR Venography provides increased spatial resolution, and thus more detailed information, especially of the tiny cortical veins



3T Pediatric Imaging



- URL- [www.iscanimaging.in](http://www.iscanimaging.in)
- Email- [info@iscanimaging.in](mailto:info@iscanimaging.in)
- Contact us- 022 2380 6464 / 6565



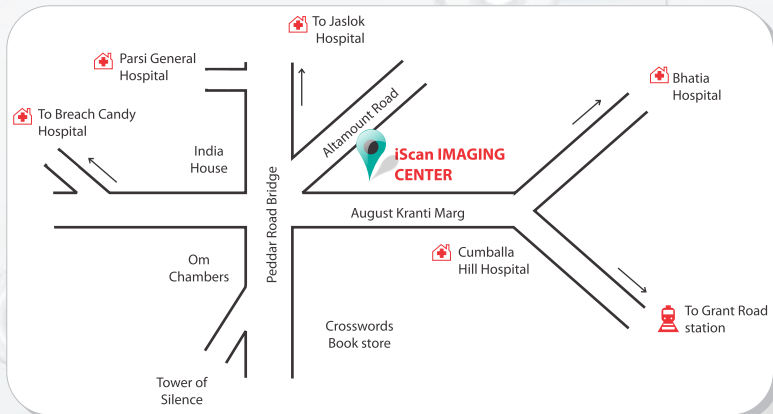
Dr Anand Gupta  
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DMRD, DNB

**iScan**  
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Mumbai's First **3Tesla MRI- Magnetom Spectra**